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THWARTING THE DEMOCRATIC PROCESS IN THE NATION'S CAPITAL

Not long ago the daily press reported the banning from the District of Columbia's public schools of the *American Observer* and the *Weekly News Review*, two publications of Civic Education Service. Persons acquainted with these two periodicals know them to be issued for use in schools in the interests of civic and social education. They are published under the auspices of an editorial board composed of Charles A. Beard, Fred J. Kelly, Harold G. Moulton, David S. Muzzey, and Walter E. Myer—all high-minded men, irreproachable as American citizens. With the aim of ascertaining the facts in the reported suppression and making them available to our readers, the editor sent a letter of inquiry to Mr. Myer, who serves also as director of Civic Education Service, and received the following reply.

During November the *American Observer* and the *Weekly News Review* carried a series of three articles on systems of government. They explained the philosophy and workings of democracy, fascism, and communism. The school authorities of the District of Columbia withheld the issue of the two papers dealing with communism from distribution in classes. They made no protest against the inclusion of such articles in the papers, nor did they criticize the method of treatment. There was no charge that communism was treated too sympathetically. A law of Congress, however, known as the "Red Rider," prohibits the teaching of communism in the District of Columbia and obliges all

teachers each month to sign a statement that they have not taught communism before they receive their salaries. This law has been interpreted to mean that a factual description of communism is unlawful. Not only are teachers forbidden to advocate it, but they may not even describe it. Hence, the schools could not make use of this issue of the papers, since they contain an explanation of the theory and practice of communism. The papers were not "suppressed" or "banned," however, and are now circulating normally in the Washington schools. The incident is interesting as an illustration of the workings of the "Red Rider."

The incident, whether or not it is actually a "suppression," is nevertheless an illustration of continued interference with the freedom of teaching in schools of the nation's capital and is, by the same token, an obstruction of the process of free discussion essential to a democracy. In the passage of the "Red Rider" the Congress has set a bad example to the state legislatures, which they have shown too ready a disposition to follow. Repeal of this restriction on the freedom of teaching is imperative, and the issue involved is of sufficient importance to engage the attention of all concerned with the growth and the stability of democracy—including the President of the United States.

HIGHER EDUCATION AGAIN ON THE UPGRADE

Evidence from two distinct and reliable sources gives assurance that higher education in the United States, at least with respect to enrolment and finance, is again on the upgrade. The information on enrolment is supplied in the report prepared annually by President Raymond Walters, of the University of Cincinnati, and published in *School and Society*. The figures for 1936 represent an increase of 6.5 per cent in full-time enrolment over 1935, "which in turn exceeded 1934 by 6.6 per cent." All geographic divisions of the country showed increases for 1936 over 1935, the highest percentages being as follows: West South Central, 11.07; East North Central, 8.9; Mountain, 7.18; Pacific, 7.16. The percentages for the different types of institutions in declining order of proportionate increase are: technological schools, 11.3; universities under public control, 8.7; separate colleges, 4.4; universities under private control, 2.9; and teachers' colleges, 2.7.

The information on finances is presented in Circular Number 167

of the United States Office of Education, entitled "College Receipts and Expenditures, 1935-36 (Preliminary Sampling Report)." In a release based on this circular it is stated:

Increases have ranged from 2.9 per cent in expenditures of 122 privately controlled universities, colleges, and professional schools attended by white persons, to 26.2 per cent in receipts of two negro teachers' colleges and normal schools. The average increases for all institutions reporting are 12.6 per cent in receipts, including those for capital outlay, and 5.8 per cent in expenditures for instructional and general purposes only.

AN EXPERIMENTAL FOUR YEAR JUNIOR COLLEGE IN OPERATION

In September George Peabody College for Teachers in Nashville began operation of what is variably called an "experimental" or "demonstration" four-year junior college, which includes the last two high-school and the first two college years. We quote the purpose of the new unit as stated in a special announcement.

In the development of teacher training during the past quarter of a century the demonstration school has played a significant part. After studying the theory of education in the classroom the prospective teacher goes into the demonstration school in these institutions to see the theory actually demonstrated by outstanding teachers. In this way the best educational thought is translated into practice.

Since Peabody has developed a strong graduate school for the training of teachers and has reached the point where a large percentage of its graduates go into college and university teaching and administration, it is necessary that its demonstration unit be extended to include opportunity for observation of superior teaching beyond the high-school level. A demonstration college is needed to serve as a laboratory for the training of college and university teachers, just as the demonstration school today serves in the training of teachers, supervisors, and administrators below the college level.

A further reason for extending the demonstration unit is the fact that one of the significant developments in American education during the present century has been the growing conviction that the first two years of college work are a continuation of secondary or general education. Probably no institution in American education in recent years has grown more rapidly than the junior college which embodies this idea. In fact, there are more than five hundred junior colleges in the United States, and their number is consistently increasing. The distinct trend is for the junior college to become an extension of the public high school and to be closely integrated with it.

In view of this unmistakable and fruitful development, Peabody is adding its efforts to those of a number of higher institutions by providing for the junior-

college studies in a practical way. It is including in its demonstration unit the type of institution which, it appears, will be the goal in public education, the genuine people's college. It will be to this unit that prospective junior-college, college, university, and normal-school teachers and administrators will go to observe in actual practice the teaching of subjects on the junior-college level, just as prospective elementary- and high-school teachers now go to the demonstration school, below the junior-college level, for observation and study. In this demonstration junior college will be found the curricular organization, methods of teaching, and administrative control that will represent the best modern educational practice.

Following this trend in American education, the extension of the demonstration unit will involve fundamental reorganization to effect economy of time and expense in the educative process. One phase of this program is the elimination of the equivalent of one grade from the present elementary- and high-school organization, thus accomplishing the work of the present demonstration school in eleven years and adding two years of demonstration junior-college work. The fact that over one-half of the state and local school systems of the South are on an eleven-grade basis, and have been for many years, furnishes reason for Peabody to maintain a demonstration unit on this basis. The experience of the school systems of Dallas, San Antonio, Houston, Birmingham, Kansas City, Washington, D.C., New Orleans, and numerous others has demonstrated that the eleven-grade organization is justifiable in the interest of educational and financial economy.

Consequently one of the functions of the demonstration school is to show that, through more effective and compact organization, the elimination of duplication and overlapping of work in courses, it is possible without loss of thoroughness to accomplish in thirteen years the work formerly requiring fourteen years. Thus students can be prepared to enter senior college one year earlier.

As indicated above, a further phase of this program is the development of a demonstration junior-college curriculum in keeping with the trend of modern educational development. Assuming that the junior college is fundamentally more secondary in its nature and consequently more cultural, liberal, and general in its aims and purposes than the senior college which emphasizes specialization and the beginning of professional training, a curriculum based on that philosophy has been projected. It consists of two years in these varied fields giving a wide choice of the materials of general education: botany, chemistry, economics, English, fine arts, Latin, physics, physiology and health, religious and social studies, Spanish, and zoölogy.

In order to demonstrate the best practices in organization, teaching, and administration for this type of institution, Peabody is projecting the Demonstration Junior College. This unit links in its curriculum the last two years of high school and the first two years of college, thus constituting the capstone of a continuous, unbroken, integrated program of general, cultural, liberal education. The requirements of high quality of instruction and accurate scientific investiga-

tion, which will go forward in this new division, will contribute in a substantial way to thoroughness and scholarship on these levels of education so rapidly developing in the United States.

Authorization for conducting the experiment in reorganization had previously been granted by the Southern Association of Colleges and Secondary Schools after petition to the Commissions on Secondary Schools and on Institutions of Higher Education of that body. After authorization the president of the association appointed as a committee to supervise the experiment O. C. Carmichael, dean of the Graduate School of Vanderbilt University, E. L. Gillis, registrar of the University of Kentucky, and H. Reid Hunter, associate superintendent of schools of Atlanta, Georgia. The director of the new junior college, Dean Joseph Roemer, has recently prepared his "Progress Report No. 1" to the supervising committee, copy of which is at hand at this writing and from which the following informative extracts are made.

Under the head of "Organization and Administration" the report indicates that the faculty is being separated "at the end of the junior-college level for all academic subjects and, as far as possible, for all other subjects"; that, "for the purpose of closer integration, when advisable, faculty members teach all the way through the Experimental Junior College"; that the standard of the Southern Association pertaining to teaching load at the junior-college level is being adhered to; and that "all members of the . . . faculty hold the Master's or Doctor's degree with the exception of six teachers of the special subjects."

The total enrolment for the current school year is indicated as 390 students distributed as follows: third high-school year, 83; fourth high-school year, 100; first college year, 99; second college year, 88; and specials ("city and county teachers"), 20.

Illustrations of experiments in progress are: "Eight high-school Seniors are taking college physics with eighteen college Freshmen"; "fourteen high-school Seniors are taking mechanical drawing with twelve college Freshmen"; "two very superior high-school Seniors are taking elements of economics in junior college."

Under the heading "The Experimental Junior College Curriculum" the report makes the following statements.

. . . instead of offering the first two years of the narrow, traditional four-year liberal-arts course, we are giving a general, cultural, liberal course designed for general education and enriched living, as well as for the specific preparation for more advanced collegiate study. Consequently, the two years of sequential study in a few fields give way to a number of general or survey courses.

For example, instead of two years of work in history of the traditional, liberal-arts type, we offer a year's work in world-history; a year's work in political science; a year's work in the elements of economics; and two years of work in geography: all of an orientation type.

An example of another type is taken from college Freshman English. The materials carried formerly in a year's work in English have been telescoped into two quarters, the third quarter being devoted to spoken English carried on primarily in laboratory form. All Freshman students are put through an individual clinical examination to discover speech defects, the purpose being to discover all those students having speech defects sufficiently serious to interfere with their normal progress; to diagnose and give individual attention to the speech problems of these students; to record the clinical histories of the cases dealt with; and to conduct research work in the general field of speech correction. . . .

A final example is taken from mathematics. Instead of offering the traditional high-school course in mathematics, which usually consists of plane geometry in the third year of high school and solid geometry and plane trigonometry in the fourth; and the traditional two-year college course consisting usually of college algebra, plane and spherical trigonometry in the first year, and differential and integral calculus in the second; we are offering a four-year integrated course (solid geometry and plane trigonometry as specific subjects in the fourth year of high school being eliminated) which we think is more cultural and liberal in its content and more functional in its results.

Reference is made also to "an appropriate testing program" in progress, so that, as the program develops, "it will be possible to evaluate the effectiveness of certain techniques of teaching, combinations of students, or reorganization of subject-matter units."

The development as described is of such a nature that it should aid in clearing up many of the issues involved in the impending reorganization of American education at the level represented. It can at the same time provide patterns of practice for schools and systems already committed to, or now considering, similar plans of reorganization.

CURRICULUM TRENDS IN NEW YORK STATE

Through the courtesy of George M. Wiley, assistant commissioner of education of the New York State Education Department, whose

particular concern is secondary education, we have received a table reporting the percentages of pupils in that state enrolled in the high-school subjects. We reproduce in the accompanying table the percentages for two years, 1919 and 1934. A span of fifteen years should be long enough to disclose significant trends. A glance down the columns for the two years shows the following to be the most notable shifts: the decline in Latin and Spanish and, therefore, in the field of foreign language considered as a whole; the decline in

PERCENTAGES OF SECONDARY-SCHOOL PUPILS (FOUR-YEAR HIGH SCHOOLS)
ENROLLED IN VARIOUS SUBJECTS IN NEW YORK STATE DURING
THE YEARS 1919 AND 1934

SUBJECT	PERCENTAGE OF PUPILS		SUBJECT	PERCENTAGE OF PUPILS	
	1919	1934		1919	1934
English.....	84.2	91.7	Bookkeeping.....	15.9	12.6
French.....	27.2	27.3	Commercial arithmetic.....	11.5	7.0
German.....	5.8	6.1	Shorthand.....	10.1	12.7
Latin.....	32.8	15.9	Typewriting.....	14.1	20.9
Spanish.....	17.4	7.9	Drawing.....	43.8	34.3
Mathematics.....	58.2	46.8	Music.....	28.1	17.7
Science.....	62.5	64.8	Home economics.....	7.8	7.6
History.....	32.2	37.4	Agriculture.....	0.9	0.8
Civics.....	19.6	24.3	Industrial arts.....	5.7	6.3
Economics.....	1.2	5.7	Technical courses.....	*	1.9
Economic geography.....	2.9	7.5			

* Included with industrial arts.

mathematics, which we assume to be supra-arithmetical mathematics; an increase for the social subjects; and a decline in the fine arts. English has gained to some extent, while the practical arts (home economics, agriculture, industrial arts, and technical courses) as a group have done little more than hold their own. No figures on physical education are included.

It is not easy to generalize from such limited evidence, but a few comments may be ventured. The subjects traditionally favored by requirements for admission to college, foreign language and mathematics, have been losing ground, whereas the subjects contributing to an understanding of society have made some gains. It is Commissioner Wiley's opinion, expressed in the *New York Times* in an

extended statement, which to our regret space prevents us from quoting in full, that such shifts reflect the changing clientele of the high school—a clientele that draws increasingly from the total population of high-school age. This interpretation is probably correct, but it is difficult to understand why the same factor should not increase the proportionate enrolments in the commercial subjects, offset the decline in the fine arts, and stimulate large increments in the practical arts. As is often the case in studies of this type, persons advocating curriculum reform will approve many or most of the trends disclosed but will be impatient at the rate of change.

HERE AND THERE AMONG THE HIGH SCHOOLS

A fusion course in English and social science.—Through the courtesy of Professor O. K. Garretson, of the University of Arizona, we have received the description of an experimental fusion course in English and social science introduced during the current school year in the Union High School at Phoenix. The course is being given in two double-period classes of about seventy pupils each. Two teachers are in charge, one from the department of English and the other from the department of social science. As a usual thing the teacher of social science conducts the recitations, and the other teacher has charge of the English portions, such as themes, outlining, oral work, and reports on books and magazine articles. The course is designed for high-school Seniors, extends through two semesters, and yields two units of credit, equivalent to the amount ordinarily given for English, civics, and economics. In some respects the course is similar to that ordinarily designated as "American Problems," but the inclusion of English calls for much more extensive reading and more oral and written composition. The course may be described in brief as reading and writing about subject matter in social science.

The content has been organized into six general topics, or units: (1) "The Federal System of Government," (2) "Propaganda, Pressure Groups, and Public Opinion," (3) "War and Peace and International Relations," (4) "Problems of Our Economic System," (5) "Problems of State and Local Governments," and (6) "Preservation of Democracy." Instead of purchasing textbooks, pupils pay a fee of a dollar and a half for the two semesters, with which various books

and magazines are purchased. Two textbooks in government and three in economics are used, and much reading in magazines is required. Additional reading of entire books is required, with oral and written reports on the reading.

The teachers who planned and are teaching the course are S. T. Adams, whose preparation includes a major in social science and a minor in English, and Alex Frazier, whose preparation includes a major in English and a minor in social science.

A program of intramural athletics with unique features.—Central High School of St. Paul, Minnesota, of which James E. Marshall is principal, conducts an intramural athletic program for boys which has the two unique features of not following the class organization in the competitions and of recognizing the importance of competent officiating. The description of the program on which the present brief statement is based was prepared by J. T. McCallum, who is in charge of the program. After a tryout of the plan of class teams, it was abandoned in favor of teams made up of groups of boys irrespective of classification, on the assumption that a boy likes to have his companions on his team whether or not they are in the same class as he is. This plan was found to give play for initiative in organizing a team and to foster persistence of teams throughout the season. Each team has its own captain and manager, who are appointed or elected by its members.

Provision of competent officiating is made possible by the proximity of three colleges. The officials are college students with experience in the sports represented. Modest fees of fifty cents to a dollar and a half are paid for officiating at a game, the amount depending on the particular sport. These students have proved to be able officials and are respected by the boys on the intramural teams.

The cost of the program is carried by the athletic department of the school. However, to assure good faith of the teams in completing the season's play, boys are required to pay in a modest fee of twenty cents for the season, half of which is returned to the boy if no game is forfeited.

Touch football is the sport in the autumn program. Basketball begins early in December, giving way to ice hockey after the Christmas vacation. Spring sports are softball and tennis. Plans for ex-

pansion of the program include golf, volleyball, and horseshoe-pitching.

Of the 1,200 boys in the school, 544 compete in the intramural program. With the 120 competing in interscholastic contests, more than half of all boys are participating in athletic contests.

A high school takes over one issue of a local weekly.—Thomas N. Millard, principal of the high school at Sedan, Kansas, has submitted a copy of the November 12, 1936, issue of the *Sedan Times-Star*, which was devoted to the interests of American Education Week and in which the local news and features were edited by the pupils of the high school. Among the longer contributions prepared by pupils are a report of the observation of Education Week in Sedan, the history of the local schools, and the materials on the editorial page. Many shorter items are indicated as having been written by pupils. The project recommends itself as a useful way in which to combine a means of interesting the community in its schools with the opportunity for pupils to share in the life of the community.

A parents' night with novel features.—Another practice concerned, like the foregoing, with public relations is the parents' night conducted for several years by the high school at Rockville, Connecticut, of which Philip M. Howe is principal. This year, with an enrollment of 571 pupils, about 500 parents were in attendance. Significant features of the affair are the date, which is regularly the first Friday night after the first issue of report cards in the autumn, and a program designed to appeal to the varied tastes and interests of the parents. The program begins with a regular class period, when all activities of the school are running, this period having been omitted from the regular daily schedule. The period is followed by a diversity of programs, the adults choosing those of greatest interest. The activities include an auditorium program consisting of music by glee clubs and orchestra, a fashion show by the department of household arts, a one-act play, a twenty-minute talk on some topic relating to school and home, a basketball game, and a social hour when parents have the opportunity of meeting teachers in their home rooms.

Utilizing activities of the school in commercial education.—Accord-

ing to J. Roy Jackson, superintendent of schools at Beaver Falls, Pennsylvania, "institutions" within the schools are systematically utilized to provide business experience for pupils enrolled in the high school's commercial curriculum. A subject required of all twelfth-grade pupils in the curriculum is "office practice." This course requires two periods each day and typewriting one period, and both office practice and typewriting are scheduled for the pupil within the same half-day, an arrangement permitting practical or productive work in the office-practice department for a continuous three-hour, or half-day, interval. One teacher has charge of the office-practice course during the morning and teaches other commercial subjects in the afternoon. A second teacher reverses this schedule, conducting the office-practice course during the afternoon. The office-practice room has adequate filing space for supplies and records, as well as other items of equipment, among these being electrically operated mimeographs, a hand-operated mimeograph, an adjustable mimeoscope, adding machines, typewriters with carriages of various widths, staplers, and reference books.

The "institutions" in the school organization that provide experience are a desk clerk for the office-practice room; the office of the superintendent; the telephone switchboard carrying all public-school telephones; and offices of senior high school principal, junior high school principal, school nurse, attendance teachers in senior and junior high schools, general industrial and correspondence teachers, and high-school treasurer. The duties of each of the pupil positions represented have been comprehensively indicated.

Stimulating educational use of radio programs.—In the Mound Junior High School of Columbus, Ohio, of which L. N. Drake is principal, there is published each Monday a mimeographed weekly bulletin called "Radio Program News." Preparation of the bulletin is the work of the department of history and civics, Kenneth Povenmire of the department assuming major responsibility. The bulletin calls attention to "interesting and valuable" programs of the week and makes special comment also on outstanding programs listed for later dates. Each bulletin includes also a report on the "project program" of the week before, the nature and significance of which is made apparent in the following quotation from a recent issue.

More than fifty Mound Junior High students and several instructors of the history department gathered at their individual radio sets in their homes last Thursday evening and, as a project of the history department, listened to "The Story of Rubber" as presented by the "Cavalcade of America." On Friday morning the students presented written reports of what they heard, and several instructors of the department spent time in discussing the program. The broadcast was worthy of the effort and time put in it, and we are pleased with the co-operation and interest shown by the students and instructors of the department in this project. The program, by the way, had as history advisers Dr. D. R. Fox and Dr. Arthur Schlesinger, noted historians, to check the accuracy of the material broadcast.

The bulletin gives the names of pupils participating in the project.

THE UNIVERSITY OF CHICAGO DINNER

The University of Chicago Dinner, given annually during the meeting of the Department of Superintendence of the National Education Association, will be held at the St. Charles Hotel, New Orleans, Louisiana, on Wednesday evening, February 24, 1937. Alumni, former students, and friends of the University are most cordially invited to attend the dinner. Tickets, at the rate of \$1.50 each, may be secured from Professor Robert C. Woellner, University of Chicago.

WHO'S WHO IN THIS ISSUE

CHARLES H. JUDD, professor of education and head of the Department of Education at the University of Chicago. TROY A. SNYDER, assistant principal of Harbor High School, Ashtabula, Ohio. ROBERT WHITE, JR., chairman of the social-science department at Parker High School, Chicago, Illinois. E. G. WILLIAMSON, director of the University Testing Bureau at the University of Minnesota. R. L. LYMAN, professor of the teaching of English at the University of Chicago. R. M. TRYON, professor of the teaching of history at the University of Chicago. EDITH P. PARKER, assistant professor of the teaching of geography at the University of Chicago. WILBUR L. BEAUCHAMP, assistant professor of the teaching of science at the University of Chicago. ERNST R. BRESLICH, associate professor of education at the University of Chicago. FRANCIS F. POWERS, assistant professor of education at the University of Washington.

CHANGING CONCEPTIONS OF SECONDARY AND HIGHER EDUCATION IN AMERICA¹

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When one compares the Latin schools of Colonial days with the academies which flourished a century ago and again when one compares both these earlier types of secondary schools with present-day institutions, one cannot fail to be impressed by the differences which are exhibited in contents and methods of instruction, in the types of pupils served, and in the social purposes of secondary education. The Latin schools prepared a few boys for ultimate entrance on advanced study leading into the learned professions, especially the ministry. The academies were more inclusive in scope, enrolling both boys and girls and giving instruction in a mixed group of subjects—the classics and subjects of a more popular type. The modern secondary school, which needs no description in this assembly, is so cosmopolitan in its curriculum and so inclusive in its pupil population that it stands out as a social phenomenon unparalleled in the civilized world.

Similarly, if, in the field of higher education, the early records of Harvard and Yale are contrasted with recent catalogues of these and other institutions of higher education and if the development of state universities and land-grant colleges, with their emphasis on technical subjects and applied sciences, is studied, one realizes vividly how markedly modern colleges and universities differ from earlier colleges. The fact is that today an effort is being made through higher education to intellectualize all phases of American life. This effort is evidenced, for example, by the emphasis on scientific engineering and the trend toward the professionalization of business. Forces of the first order of importance to society have been operating to modify in a fundamental way both the original con-

¹ Paper read at the annual meeting of the Middle States Association of Colleges and Secondary Schools, November 27, 1936.

ceptions of higher education and the relation of education to practical life.

There are those who regret that these changes have taken place in education. They advocate the re-establishment of the standards and even of the detailed practices of earlier times, believing that modern secondary schools, colleges, and universities have deteriorated because of the new divisions which they have incorporated into their organizations, because of the new courses which they administer, and because of the new methods of instruction which they have adopted. These critics point out that blind trial and error rather than deliberate planning has characterized the evolution of the educational institutions of this country. Increases in resources and in registration have been so rapid, they say, that there has been a loss of balance. The time has come, they tell us, when the public, which is called on to support education, demands a review of the whole program of secondary and higher education, when reasons must be given for everything that is undertaken, and when revisions must be made wherever it appears that practices are less rigorous than they were in earlier times.

There is a disposition in some quarters to answer critics with a blanket denial of the charge that there are serious defects in the educational system as now organized. Reference is made by enthusiasts for the present system to the democratic character of the secondary schools, which are approaching the point where they can be said to provide the widest possible variety of courses for all the adolescents of the country. As for the colleges and the universities, it is pointed out that they have made contributions of great value to agriculture, industry, commerce, and politics at the same time that they have continued to give attention to the humanities and to the theoretical sciences. Secondary education and higher education have done all that can be done, it is asserted, to raise modern life to a high level where intelligence is the guide of behavior.

The clash of extreme opinions and of violent criticism and unqualified defense produces in the public mind uncertainty, which reflects itself in hesitation to approve secondary education and higher education as now conducted and in reluctance to support education above the elementary level as generously as it must be

supported if it is to realize the ambitions of those who are responsible for its administration. Furthermore, partisan disputes within the educational system itself tend to withdraw attention from the fundamentals on which educators should concentrate and on which they must ultimately reach some agreement if true progress is to be made. It seems wise, in the hope of reaching something approaching the much-to-be-desired goal of agreement, to inquire why changes in secondary education and higher education have occurred and how far these changes represent natural and legitimate adaptations to new conditions.

No one can understand secondary education and higher education in this country without seeing these upper levels of the educational system in their relation to the whole system. The history of education in this country is significantly different from the history of education in Europe in that the common school—that is, the school of the primary and elementary levels—was organized not later than the secondary school and the university but at approximately the same time and with full awareness of the importance of providing education for all the children of every community. In Europe the universities and the secondary schools had a long history before the Protestant Reformation brought into existence schools for the common people. Elementary education was provided for the common people of Europe as a result of a social movement which did not originate with the people themselves. On the other hand, the common schools of New England, which furnished the foundation for the educational system of the United States, were established by what may be called an "educated populace." The early settlers of New England were fully acquainted with the advantages of education and were desirous of rearing all children, even those of the humblest families, in the knowledge of the Scriptures and of what the first educational statutes called the "capital lawes." They inaugurated common education at the same time that they took steps to organize secondary schools and colleges.

New England was the cradle of an idea entirely new to civilization, the idea that education should be general—so general that even the common people will have a large share in the advantages of individual contact with the sources of knowledge. To be sure, those

who were preparing for the ministry were at first set apart as specially favored in the kind and amount of education which they were to receive, but the common man and the common woman were to be independent in their intellectual lives, at least insofar as independence could be cultivated through schooling in the art of reading. New England did not divide its population, as Europe had done for centuries before the Reformation, into an upper class possessed of all the advantages of education and a lower class utterly unschooled. New England began at once in the first days of community organization to require that every child of every family have some degree of education.

In consequence of the ambition of the early New Englanders to educate all the children, there was developed a common school which was designed to take care of young people not merely through early childhood but through the years of adolescence and even up to the age of twenty-one. No common school of Europe ever provided for young people beyond fourteen years of age.

It required many generations for the implications of the New England idea of universal education to work themselves out fully. It is only in our own day that this idea has really become a guiding and dominating idea. At first New England imitated Europe. New England set up a dual school system, somewhat like that which now exists on the other side of the Atlantic, with secondary schools and institutions of higher education on the one hand and unrelated schools for the common people on the other hand. A dual school system of the European type was, however, fundamentally at variance with the New England idea. Gradually, the common school pushed its way upward. The academies were partial realizations of the idea that opportunity to share in the advantages of education, even education of an advanced type, should be provided for all young people. In many cases, however, they yielded to the pressure of social demand and tried to include in their liberal offerings the curriculum of the Latin schools. The curriculum of the Latin schools was a curriculum with prestige. The academies mixed instruction in Latin with instruction in painting and music. They provided courses in religion along with traditional courses in Euclid. The academies were in essence higher branches of the common schools.

Young people came to the academies from the surrounding farms. They attended sometimes for six months, sometimes for several years. The typical academy was a kind of central common school, a people's college, the embodiment of the idea that the community should provide schooling for all young people up to twenty-one years of age.

The fact that Benjamin Franklin organized an academy with a broad curriculum as a corrective for the aristocratic Latin school and the fact that this academy later became the University of Pennsylvania, an institution different from the theological college, furnish impressive concrete evidence that American secondary and higher education did not hold to the pattern of the Latin school and the original college. It cannot be too often or too emphatically repeated that the American educational system grew from below upward, not in the reverse direction, as did the European system.

The natural evolution of the New England idea was interrupted for a time when a group of educational reformers who were dissatisfied with the common school because of its lack of standards organized the elementary school as an eight-year unit and excluded the older children from attendance. Horace Mann, Henry Barnard, Calvin E. Stowe, and John D. Pierce were undoubtedly justified in their opinion that the common school could be improved by grading the pupils and organizing the curriculum. They apparently had more interest, however, in the lowest unit of the educational system than in the development of a continuous system leading from the elementary school through the secondary school to the institutions of higher education. At any rate, the eight-year elementary school which they set up after 1840 was a school foreign to the original conception of the American common school. The elementary school of 1840 was not, and the elementary school as we know it is not, a school for young people of more than fourteen years of age.

For a short time, say from 1840 to 1870, that is, to the period following the war between the states, the academies supplied on an expanded scale the curriculum which had earlier been the ideal of the common schools. The academies were greatly extended common schools, but they did not reach all the people because they were tuition schools and because they were by no means as accessible as

the common schools had been. The education which the academies offered was higher but far less universal than that which had been given in the common schools.

The fundamental conception of a school open to all young people up to twenty-one years of age was not abandoned by the people of this country when their educational leaders organized the eight-year elementary school, which was limited to pupils of fourteen years of age and younger. When the common school became a limited school making no provision for adolescents, the American people showed their genius for social pioneering by creating a new kind of school, one which was not patterned after the Latin school, one which did not accept the limitations of the academy, one which must be thought of as the direct descendant of the native American common school, which included young people who were more than fourteen years of age. The modern secondary school and the modern college of the United States are unique inventions—continuations of the common school. Even before the war between the states the restricting influence of the eight-year elementary school was here and there being combated by extensions upward of this school in forms of organization other than that exhibited by the academy. New England towns in many cases refused to limit elementary schools to eight years and added a ninth year as a regular part of their organization. Large centers of population both in New England and in other parts of the country had gone further even before 1870 and had organized union schools which carried education beyond the rudimentary level. The new secondary schools which were developed after 1870 under the name "public high schools" charged no tuition. They rapidly superseded the academies. The American people gave expression, through the free high schools and through the colleges which they established in large numbers, to their desire to provide for all youths an opportunity to secure education above the elementary level.

In a series of brilliant researches Burrell and Eckelberry traced the opposition which the free public high schools encountered in the courts and in educational discussions during the years when they were beginning to flourish, especially between 1873 and 1885. These authors reviewed in detail the litigations in the various states which

resulted from the attempt to restrict free public education to the elementary school. They summarized this phase of their investigation as follows:

The earliest case [brought into the courts against the free public high school] was begun probably in 1871, and the latest was decided in 1893. The supreme courts of seven states, principally in the Middle West, dealt with the high-school question. The Kansas court dealt with it twice and the Illinois court three times. With the exception of *Charles H. Oiken v. J. S. Lamkin* (1879), every case grew out of opposition to the high school. With the partial exception of *Henry Rulison et al. v. Frances S. Post* (1875), all the decisions were favorable to the high school. If we may assume that the opinions of the courts do, in a broad way, reflect dominant public opinion, the decisions would seem to indicate that throughout this period opposition to the free public high school, while strong and active, represented the view of a minority.¹

The same authors pointed out that such educational leaders as Charles W. Eliot, president of Harvard University, and William G. Sumner, the famous and influential teacher of sociotology at Yale University, opposed the free public high school, maintaining that the obligation of the state to provide free schooling was fully met by the elementary school. They indicated other sources of opposition in the following statement.

The greater part of the discussion concerning the cost of high schools seems to have occurred between 1875 and 1880, and the effect on the laboring classes of extensive education was most seriously discussed during the ten years beginning in 1876 or 1877. In both these cases the evidence agrees with reasonable expectations, since the depression covered the years 1873-78, while the gathering strength of the trade unions and the opposition to them date from the late seventies. Opposition from those interested in academies and private schools and discussion of the problem of religious and moral instruction were prominent from about 1884 or 1885. This line of argument may have represented a final desperate mustering of forces by private-school and religious interests against the increasingly powerful public institution.²

It may be remarked in passing that anyone who is disturbed by the present-day attacks on free public secondary schools should acquaint himself with the historical facts reviewed by the authors quoted. Every single objection to these schools which is offered

¹ B. Jeannette Burrell and R. H. Eckelberry, "The High-School Question before the Courts in the Post-Civil-War Period," *School Review*, XLII (April, 1934), 265.

² B. Jeannette Burrell and R. H. Eckelberry, "The Free Public High School in the Post-Civil-War Period," *School Review*, XLII (November, 1934), 674.

today by taxpayers' associations and by ultra-conservative critics was formulated and urged sixty years ago. In spite of all objections, there has been during the past six decades a steady upward expansion of American education. It must be evident to the discriminating student of the national spirit of the United States that behind the organization of education above the elementary level there is a powerful social motive which will not tolerate the limitation of the educational opportunities for the common people to rudimentary instruction.

The histories of colleges and universities in this country always emphasize the fact that the liberal-arts colleges of today show many characteristics derived from the Colonial colleges, which were in reality schools of theology, where the classical languages were naturally the chief subjects of instruction. The fact is frequently overlooked that a profound change in higher education came with the development of courses in the sciences and courses in the application of science to agriculture and the mechanic arts.

The following extracts from the report of the survey of land-grant colleges and universities show how higher education took on a new pattern through the influence of a popular demand for the cultivation of applied science.

In 1852 Turner proposed that Congress make a land grant to each state for the establishment of industrial universities in the following terms:

"And I am satisfied that if the farmers and their friends will now but exert themselves they can speedily secure for this state and for each state in the Union, an appropriation of public lands adequate to create and endow in the most liberal manner, a general system of industrial education, more glorious in its design and more beneficent in its results than the world has ever seen before." (Alfred Charles True, *A History of Agricultural Education in the United States*, p. 87.)

As a result of Turner's advocacy of industrial universities, popular sentiment was aroused in the state of Illinois. Farmers' organizations became interested in the project. In 1852 the Illinois farmer's convention adopted resolutions petitioning Congress to endow such institutions with the proceeds from the sale of public lands and in 1853 the State Legislature of Illinois passed a joint resolution asking for support by the federal government.

In the meanwhile the movement for higher education of the masses had developed in other states, but it seemed to be concentrated on the idea of the establishment of agricultural colleges. This was due to the fact that agriculture was the principal industry of the country at this time and mechanic arts were

closely related and virtually a part of the agricultural industry. The state of Michigan actually organized an agricultural college supported by public funds. Eugene Davenport, a graduate of the Michigan State College and dean emeritus of the college of agriculture, University of Illinois, describes the situation in the following memorandum especially prepared for this survey:

"While not the first institution of college grade to attempt the teaching of agriculture, the Michigan Agricultural College is the oldest college of its kind in America. It was the first practical fruits of the agitation for education of college grade adapted to the farming profession that swept over the country in the late forties and the early fifties. In those days all colleges were established and maintained on private foundations supplemented by tuition fees. The start was made in four states at about the same time—Maryland, New York, Pennsylvania, and Michigan—all on private foundation except the latter and all failed except Pennsylvania which hung in the balance until the state took it over, at first in part, and finally completely. In the meantime, Michigan was organized and at work.

"The reason was this: During the public discussion for education of college grade adapted to the farming profession Michigan was holding a convention for the revision of the state constitution. It so happened that one of the delegates was a warm friend of the new movement and he succeeded in getting a clause into the constitution obligating the state to establish and maintain an agricultural 'school' either as an independent institution or as a department of the university. This was in 1850."

At the same time that Michigan was taking steps to establish a state-controlled agricultural college, Marshall P. Wilder was leading a movement for the establishment of an agricultural school in Massachusetts. Similarly in Pennsylvania the state agricultural society agitated the organization of a school for the education of farmers, which later became known as the "Farmers' High School." The society succeeded in securing assistance from the state legislature and through subscriptions established the school as a private institution in 1859. In the state of Maryland the movement for agricultural and practical education for the farmer also developed. Under the leadership of the state agricultural society, an agricultural college was chartered by the state legislature and opened in 1859, funds having been raised through stock subscriptions and the state having made a grant of \$6,000 annually. The establishment of both an agricultural and a mechanics college for the education of the masses was agitated in New York as early as 1849. The mechanics college was referred to as a People's College, which was described as follows:

"The plan proposed to combine labor with study and improvement in manual skill with intellectual culture—to have in time a mechanic's institute or seminary in every county and senate district, but in the first effort to establish one central or state college of practical science, wherein our youth, aspiring to efficiency and eminence in life as architects, engineers, or artisans of any sort, might receive a thorough physical and mental training, laboring a part of the

day and thus paying at first a part and afterward for a whole subsistence and teaching." (Plan for People's College submitted by Mechanics Mutual Protection at Lockport, New York, and afterwards to state organization, December, 1849.)¹

The foregoing statements could be supplemented by many others that lend support to the thesis which this paper is defending—the thesis that higher education as well as secondary education grew out of the desire of a democratic nation for intellectual illumination of all the undertakings of the common people. The universities of the present day, with their schools of agriculture, forestry, business, and commerce, are nothing more nor less than outgrowths of the early New England concept that education should be provided on a liberal scale for all the people.

It would, of course, be idle to contend that the secondary schools and the institutions of higher education of this country as now organized have fully realized all the social purposes for which they were established. It would be irrational to contend that secondary schools and institutions of higher education as now conducted are above criticism. When one contemplates the rapidity with which knowledge has expanded in recent years as a result of research and when one observes the unprecedented influx of students into American institutions of learning above the elementary school, one can only wonder that there has been as little confusion as there has been in securing the large measure of popular participation in higher education which has been achieved by the American people. There are deficiencies in the American educational system—deficiencies which must be removed. The fundamental concept of large opportunity for all young people—the concept which this system has definitely accepted—is, however, of such vast social significance that it is altogether certain that the nation will not reverse its attitude even though it has been impossible in the brief period of recent development to escape some of the faults which come from rapid expansion. One fact which should be clearly recognized is that there is no remote possibility of going back to the older type of liberal-arts education.

An innovation introduced into the public policy of the United

¹ *Survey of Land-Grant Colleges and Universities*, I, 4-6. Directed by Arthur J. Klein. United States Office of Education Bulletin No. 9, 1930.

States during the recent depression which is not thought of by many as contributing to the educational system of the country seems likely to have a far-reaching influence on education—an influence not unlike that which the land-grant colleges have exerted on American higher education. The innovation here referred to is the organization of those quasi-educational centers known as "CCC camps." These camps are often thought of merely as relief agencies. Educational advisers were put into the camps as a kind of after-thought, after the army and the representatives of labor had been given major control. The camps express, however, in a way which can hardly be mistaken, if they are considered in the light of history, the idea that the nation intends to take care of its adolescents. The boys in the camps are out of school for one reason or another, often because the conventional curriculum of the secondary schools does not appeal to them. It is true also and highly important for the present discussion that these boys cannot find places in industry. The trend away from the employment of minors, as shown by the census, has been a rapidly accelerating trend since 1910. Unemployment of young people is not a result of the depression; it has gradually accumulated momentum and promises to be permanent. The future is perfectly clear. Minors are not going to be absorbed into the worlds of industry and commerce in the way in which they formerly were. They are not going to derive their education and their subsistence in any large measure from work on the farm or in the home. The educational system will have to expand to meet the needs of these young people. Critics who deplore the passing of the tradition of classical education and the passing of the program of drastic selection of those who are to attend educational institutions above the elementary school will discover in due time that the people of this country demand a type of education which covers more than classical education ever covered and is not selective but inclusive. The young people of America are going to have a place in modern life. That place is going to be somewhere in an expanded educational system.

One is tempted to offer a program for the new era of American education on which the nation is entering. To do so in a paper such as this might obscure the issue and, what is worse, might alienate

some who ought to be induced to take a vigorous part in the development of a comprehensive plan which will be true to the idea underlying the evolution of secondary schools and institutions of higher education in this country. There is great need for co-operative effort on the part of such associations as this in solving the problems that now confront the educational system. The American Youth Commission of the American Council on Education, the National Youth Administration of the federal government, the President's Committee on Vocational Education, and the Co-operative Study of Secondary School Standards, as well as all the institutions of secondary, collegiate, and university grade which are wrestling with the problems of youth, must find a way of joining forces. At present there is far too much partisan quarreling. There is a pride of authorship in plans for taking care of young people. There is a scramble for prestige, which leads some who ought to be tolerant of every carefully conducted experiment to become dogmatic and unco-operative.

This paper may well close without revealing the way in which its author believes that secondary education and higher education should change their institutional forms. That they are going to change is made manifest by the recent development on a large scale of junior high schools, of technical high schools, of junior colleges, and of a great variety of technical and professional courses in secondary schools, colleges, and universities. The purpose of this paper is fulfilled if it points out the historical reasons why there should be an open-minded consideration of new types of teaching and new types of care of young people which will at one and the same time promote the development of the higher forms of intellectual life and provide for the broadest possible participation of the American people in scholarly pursuits. A concept of education vaguely apprehended early in the history of American life has gradually come to clear recognition and has given rise to a type of secondary education and a type of higher education which it becomes the duty of this generation to perfect. To carp about present-day education is utter folly. The national policy should be a policy of co-operative forward movement.

REPORTING INTELLIGENCE-TEST SCORES TO HIGH-SCHOOL PUPILS

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A PRACTICE CONTRARY TO RECOMMENDATION

One of the problems growing out of the widespread use of intelligence tests has to do with the reporting of the scores to parents and pupils. High-school and college administrators frequently refuse to give their teachers and instructors access to the intelligence-test scores, and few colleges or high schools report such scores to pupils. The literature on the subject offers strong support for the prevailing practice. Symonds¹ warns the school administrator that he is only courtting trouble by reporting intelligence-test scores to parents and pupils. Symonds implies, however, that some very real values might result if the scores could be safely reported and explained. Odell² agrees closely with Symonds on the question of reporting intelligence scores to parents and pupils.

In January, 1933, the writer was given the responsibility of administering the intelligence tests in Harbor High School, Ashtabula, Ohio. This school is a six-year high school with an enrolment of approximately six hundred pupils. In 1933 the only intelligence test used in the high school was the Ohio State University Psychological Test, which was administered each year to the members of the Senior class. It was not the custom to report the scores to the pupils, although many pupils asked for them.

Several factors had to be considered before it was finally decided to tell the pupils their scores. The first, and by far the strongest, of the arguments against such a procedure was the weight of expert opinion opposed to it. The second was the serious danger of antago-

¹ Percival M. Symonds, *Measurement in Secondary Education*, pp. 527-28. New York: Macmillan Co., 1927.

² C. W. Odell, *Educational Measurement in High School*, pp. 392-93. New York: Century Co., 1930.

nizing the parents of the pupils. If the second objection could be overcome, it would be possible to test some of the opinions of the authorities by means of an experiment.

A careful study of local conditions led to the belief that there was little likelihood of serious objections from the parents. There were four reasons for this belief: (1) The school administration enjoyed the confidence of the parents. (2) Parents had always shown a desire to know any facts which concerned the pupils. (3) Many of the parents were foreign-born, chiefly of Finnish descent, and they were not likely to be concerned about the matter. (4) Few of the parents were of the type who feel that there is invariably a positive correlation between scores on intelligence tests and social position. Subsequent events proved that these estimates of the parental attitudes were correct. In the three years that the scores have been reported to pupils, not a parent has voiced an objection.

The custom of giving the Ohio State University Psychological Test to Seniors was unsatisfactory because the pupils were almost ready for graduation before their scores were available. It was decided, therefore, to give this examination in the ninth instead of the twelfth year. Accordingly, in 1934, the examination was administered to all the members of the senior high school who had not taken it previously. In the following years the examination was given only to ninth-grade pupils. It is now possible to report the scores to pupils early in their high-school careers and to use the results for guidance and administrative purposes. It had been the practice to give the Otis Self-administering Test of Mental Ability, Intermediate Form A, to the eighth-grade pupils of the occupations classes. In 1934 this procedure was changed, and this test is now administered to the seventh-grade pupils during their first year in junior high school. As a result of these changes, scores on two tests are now available for all the pupils in the senior high school, except a few Seniors, and one score for the pupils in the junior high school.

THE PROCEDURE FOR REPORTING THE SCORES

At the time the tests were administered, the pupils were told when and where they might learn the results. No score was given out unless the pupil himself was there to receive it. No pupil was urged to

get his score, but all were given an opportunity to do so. Each pupil received a slip of paper on which his score, the percentile rank, was written. When all the pupils present had received their ranks, the scores were explained to them. All those receiving the test ranks were required to remain for the explanation.

Some of the points brought out during the explanation were: (1) the varying amounts of study time needed by pupils with high and low ranks, (2) the probable effects of too much participation in extra-curriculum activities, (3) the meaning of "percentile rank," (4) the ability of pupils with ranks of 40 to earn places on the honor roll by hard work and careful application, and (5) the occasional failure of a careless or indifferent pupil with a rank of 90 or better. This brief summary of some of the main points of emphasis in the explanation should give an idea of the general procedure followed.

EXPLANATIONS TO PARENTS

A speech on the "Values and Uses of Intelligence Tests" was prepared and presented to the parent-teacher group to guide the parental reactions. The speech dealt with the history of the measuring movement; some of the mistaken beliefs about intelligence; types of intelligence; inheritance and growth of mental ability; uses made of intelligence tests in administration and guidance; types of tests, illustrated by samples which were examined by the parents; methods of standardization; and the procedure for scoring and interpreting the results. This speech has already been presented seven times within the city and is still in demand. In the course of the speech the parents were told that the ranks were being reported to pupils.

COMPARISON OF RANKS OF ENTIRE SCHOOL WITH RANKS OF PUPILS WHO WERE TOLD THEIR SCORES

In an effort to determine the effect of reporting the ranks to the pupils, a questionnaire was submitted to all the available pupils in the senior high school. The pupils were asked to sign their names to the blanks and to state whether they had received their ranks on the test. They then answered the thirteen questions listed on the sheet.

In Table I is given a comparison of the distribution of the percentile ranks of the entire senior high school enrolment with that of the pupils who received their scores. The distribution of the entire en-

rolment is definitely skewed toward the higher brackets, 198, or 70 per cent, of the pupils having ranks of 51 or better and 106 pupils, or 37 per cent, ranking above 75. The large number of high scores involved is of considerable importance when judging the effects of reporting the scores to pupils.

One hundred and fifty-seven, or 78 per cent, of the pupils who were told their ranks had scores above 50. An even 50 per cent of them ranked above 75. There were 85 pupils in the senior high school

TABLE I
COMPARISON OF PERCENTILE RANKS MADE ON OHIO STATE UNIVERSITY PSYCHOLOGICAL TEST* BY THE TOTAL SENIOR HIGH SCHOOL ENROLMENT WITH RANKS MADE BY PUPILS WHO WERE TOLD THEIR RANKS

PERCENTILE RANK	TOTAL ENROLMENT		PUPILS RECEIVING TEST RANKS	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
I- 25.....	31	11	17	8
26- 50.....	54	19	29	14
51- 75.....	92	33	56	28
76-100.....	106	37	101	50
Total.....	283	100	203	100

* Some of the scores in the distributions are from Form 18 and others from Form 19 of the Ohio State University Psychological Test. For the purposes of this article no distinctions need be made.

with ranks below 51, but only 46, or 54 per cent, of these pupils received their ranks. It is apparent that pupils with scores above 50, even when they do not know their ranks, are more interested in the results of intelligence tests than those who have scores below 50. Generally speaking, the higher the scores, the greater the interest.

EFFECTS OF REPORTING THE SCORES TO PUPILS

The responses to the 13 questions by the 203 pupils who received their scores are distributed in Table II. The data are presented in such a way as to show the variations in the responses of the pupils with ranks above 50 and those with ranks of 50 or below. In the following brief discussion of the replies to the questions in Table II the numbers 1, 2, 3, etc., indicate the question under consideration.

(1) A substantial majority of both groups are in favor of the practice of reporting the scores to pupils, but the pupils with ranks of 50

TABLE II

RESPONSES TO THIRTEEN QUESTIONS GIVEN BY 157 HARBOR HIGH SCHOOL PUPILS WITH PERCENTILE RANKS ABOVE 50 AND BY 46 PUPILS WITH PERCENTILE RANKS OF 50 OR BELOW IN INTELLIGENCE TEST

QUESTION	PERCENTAGE OF PUPILS ANSWERING "YES"		PERCENTAGE OF PUPILS ANSWERING "No"	
	Pupils Ranking above 50	Pupils Ranking 50 or Below	Pupils Ranking above 50	Pupils Ranking 50 or Below
1. Should intelligence-test scores be reported to pupils?.....	90	72	10	28
2. Would you do better work if you did not know your intelligence-test score?	17	35	83	65
3. Does your score make you feel that you cannot be a success in your school work?.....	6	33	94	67
4. Does your score encourage you to do better work than you would do if you did not know it?.....	67	41	33	59
5. Does a high score mean that you can succeed without working?.....	1	0	99	100
6. Does a person with a score below 40 have to work much harder to succeed than a person whose score is 75?.....	75	59	25	41
7. Does a score below 30 mean that you cannot possibly do high-school or college work?...	4	0	96	100
8. Does the explanation by the teacher help in making the meaning of the score clear to you?.....	97	96	3	4
9. Have you told your parents your score on the test?.....	71	44	29	56
10. Are your parents in favor of having the scores reported to pupils?.....	32	20	0	9
11. Should scores be read aloud to pupils instead of being placed on slips of paper? ...	1	0	99	100
12. Do you think you could improve your score if you repeated the test?.....	35	72	65	28
13. Would you like to have a personal and private discussion of your score to help you to understand what it means?.....	35	39	65	61

or below are more opposed to it than those with scores in the upper ranges. (2) The majority of both groups believe that a knowledge of their scores has no adverse effect on their school work. (3) The percentage of pupils ranking 50 or below who feel that they cannot be successful in their school work is much larger than the corresponding

percentage of those with ranks above 50. Knowledge of their scores has a discouraging effect on a third of the pupils with ranks of 50 or below. (4) Less than half the pupils with ranks of 50 or below, compared with about two-thirds of those with the higher ranks, are encouraged by the knowledge of their scores to do better work. (5) Both groups are practically unanimous in the belief that it is impossible for a pupil with a high score to succeed without working. (6) Three-fourths of the pupils ranking above 50 feel that a pupil with a rank of 40 must work harder to succeed than a person whose rank is 75, but only about three-fifths of those with ranks of 50 or below feel the same way. (7) Both groups are practically unanimous in the belief that a rank of 30 does not mean that the person cannot possibly succeed in high school or college. (8) Both groups believe that the explanation helps greatly in making the meaning of the scores clear to them. (9) The percentage of pupils with ranks of 50 or below who failed to report their ranks to their parents is nearly twice the corresponding percentage of pupils with ranks above 50. (10) All the parents of pupils ranking above 50 whose opinions are reported are in favor of the practice of giving the ranks to pupils, but only a fifth of those ranking 50 or below report that their parents favor the practice. (11) The pupils are almost unanimously in favor of the practice of reporting the scores on slips of paper. (12) More than a third of the pupils who rank above 50 believe that they could improve their scores if they were permitted to take the test again. The pupils with ranks of 50 or below are even more optimistic, nearly three-fourths answering that they think they could improve with another trial.

MOTIVATING EFFECT OF REPORTING THE SCORES

One of the most noticeable effects of reporting the ranks to the pupils has been a startling increase in the mean percentile rank of the groups tested during the following years. The mean percentile rank for 376 pupils tested during the school years 1930-33 was 49.97, with a standard deviation of 27.28. For the following three years, when the scores were being reported to pupils, the mean percentile rank for the 321 pupils tested was 62.26, with a standard deviation of 26.29. There is, of course, a possibility that some uncontrolled factor, such as the effect of the depression on pupil retention through

the Senior year, contributed to the rise in score. Retention has always been high in this school, however, and the variations were slight. Any slight increase in the retention of pupils who would ordinarily have dropped out before the Senior year during the depths of the depression, 1930-33, would tend to be offset by the fact that the scores for 1933-36 are almost entirely those of Freshmen and Sophomores, who, with the exception of some retarded pupils, are well below the compulsory-attendance age. The increase in the percentile ranks began the first year after the practice of reporting the ranks was begun. In the school years 1930-31, 1931-32, and 1932-33 the mean percentile ranks of the groups tested were 50.06, 45.29, and 52.28, respectively. In the following three years, when scores were being reported, the mean percentile ranks were 64.17, 65.42, and 57.29, respectively. This evidence, although not conclusive, indicates a direct relation between the reporting of the scores and the increases in the mean percentile ranks.

CONCLUSIONS

- (1) Eighty-one per cent of all the pupils who received their intelligence-test ranks favor the practice of reporting such marks to pupils.
- (2) Although the adverse effects are more pronounced among the pupils ranking 50 or below, they are not so serious as might be expected. The writer believes that the adverse effects could be almost entirely eliminated if the procedure of reporting ranks were improved.
- (3) Pupils with ranks of 50 or below should have more detailed explanations than those with higher ranks.
- (4) Scores should be reported on individual slips of paper and should not be given out without careful explanation of the meanings.
- (5) The explanations to the parents appear to have been more successful than those given to the pupils.
- (6) It is doubtful whether the adverse effects of reporting intelligence-test ranks to pupils, when the methods outlined are used, are any more damaging to pupil morale than are reports of failures in classroom work. There is reason to believe that the good effects of such a procedure will more than offset the unfavorable effects.
- (7) The subject discussed here offers a fertile field for controlled experimentation. Schools are available where such experiments can be carried on without interference from parents and without serious damage to pupil morale.

THE EXTRA-CURRICULUM IN THE PUBLIC HIGH SCHOOLS OF CHICAGO

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PROCEDURE

This article summarizes some aspects of a study of the organization, administration, and supervision of the extra-curriculum in the public high schools of Chicago.

In the spring of 1936 an extensive survey was made through the use of interview forms answered by the administrators of twenty-three of the thirty-four high schools in the city. This coverage is adequate in view of the type of community served by each school, its enrolment, and the previous experience of the principal. Data were sought on the following elements of the extra-curriculum program: (1) range of activities, that is, the distribution of activities among the various types of extra-curriculum organizations; (2) the control of activities; (3) the formation of activities; (4) the relation of teachers to the extra-curriculum; (5) extra-curriculum finance; and (6) pupil membership, including scope of membership, guidance, and limitation and stimulation of membership.

Analysis of the evidence demonstrated that three groups of schools could be delimited. Three schools were selected, each typical of a group, and the extra-curriculum programs in these three schools were intensively studied on the basis of data obtained from the sponsors, office records, club records, and the principals of the schools. Finally, pupil participation in the extra-curriculum in the same schools was measured, and the relation between participation and the organization of the extra-curriculum was studied.

THE PRACTICES IN GENERAL

Range of activities.—The high schools in Chicago have an average of between 25 and 30 extra-curriculum activities per school, the schools with enrolments of fewer than 3,500 pupils having slightly less than 25 activities on the average and the schools with enrol-

ments of more than 5,000 pupils averaging slightly more than 30 activities. The distribution of activities by type is approximately the same for each enrolment group: a fourth of all activities are of the dramatic, musical, or forensic type; another fourth are curriculum or subject clubs; a fifth are special-interest or hobby clubs; and the remainder, about 30 per cent, are school-government organizations, publications, honor societies, and clubs fostered by outside interests, such as the Junior Red Cross or the Junior Chamber of Commerce.

Control of activities.—Practically all the schools require that activities be chartered before formation. All principals exercise veto power over the extra-curriculum activities. In less than two-fifths of the schools, however, are the organizations required to file programs of meetings and activities.

Formation of activities.—There is no discernible policy with regard to the formation of activities. Organizations are formed at any time desired, the pupils usually taking the initiative.

Relation of teachers to the extra-curriculum.—Not all teachers have extra-curriculum responsibilities, and teachers' programs are usually not adjusted to compensate for extra-curriculum duties. In two-thirds of the schools the extra-curriculum is discussed rarely or never at all in faculty meetings.

Extra-curriculum finance.—The typical high school in Chicago secures funds for its extra-curriculum mainly from dues assessed within each organization. Its funds are handled by the school treasurer, and expenditures are authorized by the sponsor or by the sponsor and the principal together, the membership having no voice. Annual audits are required.

Pupil membership.—No high school in Chicago requires extra-curriculum participation, and credit is not given for such participation. Most schools limit extra-curriculum participation, the most common method of limitation being the requirement of a definite scholarship standard. Guidance in the extra-curriculum is not well developed, and what guidance is given is mainly in the form of group guidance by the division teachers.¹ Notable in the considera-

¹ They are the teachers charged with supervision of attendance, records, and pupils' choices of subjects. They also read the school bulletins and interpret the school policies to their groups.

tion of this aspect of the extra-curriculum in the Chicago high schools is the absence of comprehensive programs for stimulation, limitation, or guidance of pupil participation.

It should be noted that the practices mentioned here are those characteristic of a majority, or in most cases a near unanimity, of the schools studied. Many variations within individual schools were observed.

Extent to which principles of extra-curriculum organization are found in the Chicago high schools.—In 1926 Koos compiled, from a survey of the literature in the field, a list of the most frequently mentioned principles to be observed in organizing, administering, and supervising the extra-curriculum. Twenty-seven principles were mentioned by three or more sources and were classified by Koos into four groups. These principles are shown in the following outline.

- I. Centralization of organization and administration
 1. Under school direction and control
 2. Some plan and unification and centralization
 3. Authoritative sanction for new organizations
 4. Veto power of principal on all actions
- II. Supervision
 5. Supervision for all activities
 6. Guidance and co-operative leadership rather than complete direction
 7. Appreciation of value by teachers
 8. Responsibilities for all teachers
 9. Expert knowledge of all sponsors
 10. Selection and promotion of teachers in part for extra-curriculum efficiency
 11. Adjustment of teaching schedules for heavy extra-curriculum loads
- III. Scope and participation
 12. Adaptation of organization to school
 13. Gradual, not sudden development
 14. Source in curricular life of school
 15. Higher aim than sociability only
 16. Wide variety of activities
 17. Leeway for individual student choice
 18. Participation by all students
 19. Membership equally open to all
 20. Limitation of number to which any student may belong
- IV. Other administrative problems
 21. Definite scheduling of organizations
 22. Part of regular program

- 23. Few if any evening meetings
- 24. High school the meeting place
- 25. Students the only members
- 26. Expenses moderate
- 27. Co-operation of the homes¹

The data in Table I show that 44 per cent of these principles of extra-curriculum organization are observed by the high schools included in this survey. Thirty-three per cent are not observed, and sufficient evidence for determination of observance or non-observance is lacking for 22 per cent of these principles. The principles in which

TABLE I
TENDENCIES AMONG CHICAGO HIGH SCHOOLS SURVEYED WITH RESPECT
TO OBSERVANCE OR NON-OBSERVANCE OF PRINCIPLES OF
EXTRA-CURRICULUM AS GATHERED BY KOOS

GROUP OF PRINCIPLES	PERCENTAGE OF PRINCIPLES		
	Observed	Not Observed	Evidence Lacking
I. Centralization of organization and administration.....	100.0
II. Supervision.....	14.3	57.1	28.6
III. Scope and participation.....	44.4	33.3	22.2
IV. Other administrative problems.....	42.9	28.6	28.6
All principles.....	44.4	33.3	22.2

the greatest degree of observance is found are those relating to centralization of organization and administration. Extensive non-observance by the Chicago high schools is noted in the case of the principles relating to supervision of the extra-curriculum and to the scope of the extra-curriculum and pupil participation.

The officers of administration must approve all new extra-curriculum organizations before formation, all organizations must have a sponsor, and the principal exercises veto power over all extra-curriculum activities. Here the Chicago high schools exhibit a settled policy involving central control by the school administration.

¹ Leonard V. Koos, "Analysis of the General Literature on Extra-curricular Activities," *Extra-curricular Activities*, p. 15. Twenty-fifth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1926.

In all other features of the extra-curriculum which were studied, a policy of laissez faire was found. That is, each organization is usually free to devise its own program; sponsors are not supervised to any appreciable extent; new activities are formed at any time desired on pupil initiative; new members are admitted at any time; activities raise finances mainly by dues but may use any of a variety of methods; there is little discussion of the extra-curriculum in faculty meetings; and pupil participation in the extra-curriculum is neither required nor systematically limited. The majority of these practices are not the results of a formulated plan but have been developed fortuitously.

Some features of the organization in the Chicago high schools are destructive of the purposes of the extra-curriculum and prevent it from reaching as many pupils as it otherwise might. One evidence of this tendency is the fact that the distribution of curriculum clubs by subjects does not correspond with the number of pupils enrolled in the various subjects. For example, there are eight times as many foreign-language clubs as there are commercial clubs although many more pupils are taking commercial courses than are taking foreign-language subjects. Special-interest or hobby clubs, the development of which is a significant index of the interest of the pupils in the extra-curriculum, are relatively under-developed, when measured by the evidence found by Reavis and Van Dyke¹ in the National Survey of Secondary Education. The Chicago high schools give the special-interest clubs only about two-thirds of the emphasis given these clubs by the schools studied by Reavis and Van Dyke, the percentage that the special-interest clubs is of all organizations being used as the measure of comparison. In addition, the system of handling finances is based on ease of administration and not on the development of pupil responsibility.

The uneven development of curriculum clubs, the under-development of special-interest clubs, and the system of handling finances, especially the first two characteristics named, together with the opportunism exhibited in most Chicago high schools in the administra-

¹ William C. Reavis and George E. Van Dyke, *Nonathletic Extracurriculum Activities*, p. 84. National Survey of Secondary Education Monograph No. 26. United States Office of Education Bulletin No. 17, 1932.

tion of the activities, limit the appeal of the extra-curriculum to the pupils, as is shown by the fact that those schools which have extra-curriculum organizations constructed without these defects have much wider pupil participation.

GROUP TENDENCIES IN EXTRA-CURRICULUM ORGANIZATION

Examination of the data gathered in this study showed three distinct groups of high schools with respect to the type of extra-curriculum program: (1) schools which have former junior high school principals as their present principals; (2) the technical high schools; and (3) the remainder of the schools, which will be designated as the "all-other" group.

The returns show that the schools in the first group have extra-curriculum programs which are more fully developed and more appealing to the individual pupil than those in the other two groups. Much evidence can be supplied to support this statement. The ratio of activities to enrolment is much greater in the first group than in the other two groups; the schools in this group have an average of one activity for approximately every 80 pupils, whereas the ratio is one activity for every 190 pupils in the technical schools and one activity for every 145 pupils in the "all-other" group. Sixty per cent of all activities in the schools of the first group are of the curriculum or special-interest category, contrasted with 50 per cent in the technical schools and 39 per cent in the "all-other" schools. Maintenance of clubs of these types requires a basis of pupil interest. The handling of activity funds in the first group of schools affords more opportunity for development of pupil initiative and responsibility because pupil officers are given more duties than in the other schools. Guidance in the extra-curriculum in the group with former junior high school principals is more personal and individual than in the other groups. Seventy per cent of all methods of guidance used in the first group are both personal and individual in nature, which is more than double the corresponding percentage in the technical or the "all-other" groups. All the schools in the first group report frequent discussion of the extra-curriculum in faculty meetings, while four-fifths of the other schools report little or no discussion.

The technical schools have extra-curriculum programs not so fully developed as those of the schools with former junior high school principals although they are more fully developed than those of the "all-other" group. The technical schools also stress pupil participation in group control.

The high schools in the "all-other" group have, as a group (exceptions were noted, of course), merely tolerance of the extra-curriculum without a plan for designing it to secure the utmost benefit for the pupil.

THE EXTRA-CURRICULUM PROGRAM IN SCHOOLS TYPICAL OF THE THREE GROUPS

Administration of program.—Three schools were selected, each of which was typical of one of the defined groups. The typical school selected from each group was that school which most nearly approximated the group median in enrolment and in ratio of activities to enrolment and which followed the central tendency of the group with regard to control of the extra-curriculum, guidance, finance, recognition of pupil participation, teacher relations, distribution of activities among types, and the formation of activities. A school was found in each group which was remarkably typical. School A will be named as the school typical of the group served by former junior high school principals, School B as the school typical of the technical schools, and School C as the school typical of the "all-other" group.

These data, derived from the sponsors and principals in the schools, show that School A has an extra-curriculum program more fully developed than that of School B or of School C, as is shown by the comparisons given in Table II.

School A recognizes the social-moral purpose of the extra-curriculum to the greatest extent while School C stresses the performance of service to the school as a purpose. School A is the only school to require reports from its sponsors and to give supervision by other means. More than half the sponsors of School C report that they are practically unlimited in their discretion. The fewest number of hindrances to the extra-curriculum is reported from School A. Not only are more hindrances to the extra-curriculum reported from School B and School C, but the hindrances reported, especially in School C, are of a nature more damaging to the entire program. A

greater percentage of organizations in School A report that they have constitutions and definite orders of business. In addition, the activities in School A use a greater number of methods of financing supplementary to the dues than the other schools studied. School B ranks between School A and School C in all respects with the exception that it gives the most training to its officers and shows the greatest pupil concern with the selection of sponsors. If School A is considered typical of the group with former junior high school

TABLE II
DEVELOPMENT OF CERTAIN FEATURES OF THE EXTRA-CURRICULUM IN SCHOOLS A, B, AND C ACCORDING TO DATA SUPPLIED BY SPONSORS

FEATURE	COMPARATIVE DEVELOPMENT		
	SCHOOL A	SCHOOL B	SCHOOL C
Social-moral purpose of extra-curriculum.	Most	Middle	Least
Extent of supervision.....	Most	Middle	Least
Number of hindrances.....	Fewest	Middle	Most
Percentage of organizations having constitutions.....	Most	Middle	Least
Percentage of organizations having constitutions and orders of business.....	Most	Middle	Least
Training given leaders.....	Middle	Most	Least
Pupil concern with the selection of sponsors.....	Middle	Most	Least
Requirements for membership.....	Fewest	Middle	Most
Supplementary methods of financing besides dues.....	Most	Middle	Least

principals, this evidence substantiates the earlier conclusion. It is more than a coincidence that practically every classification of data shown in Table II presents a progression up or down, as the case may be, from School A through School B to School C.

Pupil participation.—As the data thus far given show that the high schools administered by former junior high school principals have the most fully developed extra-curriculum programs, the extent of pupil participation in the extra-curriculum in the three schools typical of the groups thus becomes an interesting and at the same time a crucial question. It will also throw light on the question of the actual effect of the organization of the extra-curriculum on the extent and the manner of pupil participation.

The school yearbook or annual was used to determine the extent of pupil participation. In each of Schools A, B, and C the Senior class listed its activities in the annual. These annuals constitute a valid listing of the extra-curriculum activities of the Seniors. The Seniors will, of course, list all activities possible, but group approval serves as a check against overstatement and, in addition, the books are edited by a pupil staff. The number of units of participation on the part of each Senior in each of the types of extra-curriculum activity were tabulated, together with the years in which this

TABLE III
AVERAGE NUMBER OF UNITS OF PARTICIPATION PER PUPIL
IN VARIOUS EXTRA-CURRICULUM ACTIVITIES
IN SCHOOLS A, B, AND C

Activity	School A	School B	School C
School government.....	3.21	2.20	1.37
Special-interest clubs.....	1.78	.53	.56
Musical, dramatic, or forensic activities.....	.88	.52	.41
Curriculum clubs.....	.82	.27	.19
Publications.....	.29	.15	.14
Clubs fostered by outside interests.....	.12	.12	.27
Honor societies.....	0.10	0.41	0.77
All activities.....	7.20	4.20	3.71

participation took place and the offices held. A "unit" was defined as one semester's membership or work in an activity. No adequate unit of measurement has yet been devised which allows for intensity of work.

The elements studied were the extent of pupil participation, the extent to which participation was based on interest, continuity of participation, lower-class participation, the percentage of pupils not engaging in activities, and the spread of office-holding among the pupils. On all these points School A presents a decisive margin over the other schools, while School B surpasses School C.

The outstanding piece of evidence, as shown in Table III, is the finding that the average number of units of participation in School A is nearly double that in School B or in School C. Pupil participation in curriculum and special-interest clubs in School A is more than triple the average of either School B or School C; the average

Senior in School A listed 2.60 units of participation in curriculum and special-interest clubs, the average Senior in School B listed only 0.80 of a unit, and in School C the average was only 0.75 of a unit. These clubs are of especial significance because only in these clubs is interest the sole basis of membership.

Table IV indicates that School A secures more lower-class participation in the extra-curriculum than do the other two schools. The percentage of second-year pupils participating in the extra-curriculum in School A is larger than the percentage of fourth-year pupils in either School B or School C. The percentage of second-year

TABLE IV
PERCENTAGES OF SECOND-, THIRD-, AND FOURTH-YEAR
PUPILS PARTICIPATING IN EXTRA-CURRICULUM
ACTIVITIES IN SCHOOLS A, B, AND C

Pupils	School A	School B	School C
Second-year pupils.....	69.4	28.3	17.7
Third-year pupils.....	76.5	38.2	29.8
Fourth-year pupils.....	86.2	69.1	67.1

pupils participating in School A is more than twice the corresponding percentage in School B and is nearly four times the percentage in School C. The extent of non-participation is also significant. Nearly a third (32.9 per cent) of the Seniors of School C do not participate in the extra-curriculum. There is approximately the same extent of non-participation (30.9 per cent) in School B, but in School A this percentage drops to 13.8, or less than half that of either of the other two schools. Analysis of the records of office-holding shows the same relations. The percentages of the pupils having held office in some activity in the various schools are: School A, 33.4 per cent; School B, 17.5 per cent; and School C, 11.8 per cent. In addition, there is evidence that the offices in School C are more extensively concentrated in the hands of a few.

In School A, pupil participation in the extra-curriculum is more extensive, is more genuinely based on interest, and is more continuing than in School B or School C. School B surpasses School C on these elements of pupil participation, although by not so large a margin as School A surpasses School B.

MAJOR CONCLUSIONS

Two major conclusions may be drawn from these data. First, a survey of the extra-curriculum in the Chicago high schools shows a lack of a constructive program in significant portions of the organization of the extra-curriculum, paralleled by an attitude of opportunism. The unbalanced distribution of the curriculum clubs, the under-development of the special-interest clubs, the lack of guidance, the purely routine handling of extra-curriculum finances, the non-acquaintance of the teachers with the extra-curriculum—all are inextricably related to the lack of policy based on a study of the problem. Second, a sampling of pupil participation in the extra-curriculum (which, because it presents relative measurements and is derived from typical cases, is statistically adequate for comparative purposes) shows that administrative attention to, and proper organization of, the extra-curriculum, with efforts to appeal to the pupils, will produce more extensive, continuing, and interested pupil participation in the extra-curriculum than will the laissez faire policy characteristic of most high schools in Chicago.

A COLLEGE CLASS IN OCCUPATIONAL INFORMATION

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THE CONTENT OF INSTRUCTION

A class entitled "Vocations" is taught in University General College, University of Minnesota, for two reasons. In the first place, an attempt is made to introduce students to the available knowledge regarding the psychological factors involved in the making of a vocational choice. The following topics are discussed: popular fallacies about occupational choices; economic and social problems involved in choosing an occupation; the importance and significance of individual differences in ability; classification of occupations in relation to required ability; evidence that many vocational choices are made without an analysis of ability; ways of choosing a vocation; the University agencies available for counseling students; types of guidance problems presented by students; the relation of ability for vocational training and the making of a vocational choice; and the significance of quality of training, as indicated by marks, for subsequent success in occupations. The second objective is to orient students to the world of workers by giving them a broad overview of the various types of occupations and some indication of the relative size of these occupational fields in terms of the numbers of employed workers. Insofar as reliable information is available, the probable future trends of occupational employment are discussed. The following broad occupational fields are discussed in detail: medical occupations, including medicine proper, dentistry, pharmacy, nursing, medical technology, public-health work, and dental hygiene; teaching, including primary, secondary, and higher education and allied fields, such as parental education; business occupations, including secretarial work, accounting, and other professional types of work; agriculture and allied occupations, including home economics and forestry; engineering, chemistry, and allied occupations; social-

service occupations; journalism and other writing occupations; library work; law; and public-service occupations.

The teaching method used in the one-quarter course in occupational information is the usual method of lecture and discussion during a one-hour class period each week. Each student submits a term paper covering an occupational field of particular interest to him and including a description of the nature of the work, the size of the field for employment, qualifications for the work, and an inventory of the student's own qualifications for this type of work. If a student chooses, he is permitted to write on some general topic, such as occupational trends, methods of studying occupational trends, the variety of occupations, types of training required for various occupations, methods of determining aptitudes for occupations, methods of describing occupations, occupational opportunities for women, the effect on occupations of social and economic conditions, attitudes and beliefs about occupations and about the choosing of an occupation, and the hierarchies of occupations. A syllabus of 159 pages containing a digest of available information about occupations, particularly those of a professional character, was prepared and is used as a textbook.¹ A final examination of 203 questions has been standardized and used as a basis for assigning final marks. The total scores were translated into percentile ranks for the original standardizing group of more than three hundred students. The student's percentile rank in this final examination is his final mark in the course, subject to adjustment in terms of the quality of his term paper. This standardized and comprehensive examination has been used for the past two years without variations in marking standards. Thus, marks are approximately comparable from quarter to quarter and from year to year. The preliminary form of the final examination consisted of 247 questions and was standardized on 209 Freshmen in terms of item-analysis differentiation of the upper and the lower thirds of the total distribution and also in terms of the percentage of students answering each question correctly. The odd-even reliability of the final form of the examination is 0.94 (doubled).

¹ Published by the University of Minnesota Press. This syllabus will be issued in the spring of 1937 in expanded book form by Henry Holt & Company as one of a series of general education textbooks edited by M. S. MacLean.

AN EXPERIMENTAL STUDY OF INSTRUCTION

In order to determine the effectiveness of the occupational course in giving students reliable information about jobs, an experimental situation was created, in the autumn quarter of 1935, in which the final examination was given on the first day of instruction and repeated on the last day. This examination, as indicated above, contained questions sampling the student's knowledge of dependable methods of choosing an occupation as well as his possession of reliable information about occupations, the number of workers in the fields, the duties of various professional workers, and occupational trends. The topic of how to choose an occupation was also included. (Certain attitude tests were also subjected to experimentation and will be reported later. These include a test attempting to measure the students' attitudes toward making a vocational choice, attitudes toward education in general, and attitudes toward seven occupational fields.) Two control groups were given the same tests before and after one quarter of residence. These control groups included 72 Freshmen registered in the Arts College and 87 students registered in the Writing Laboratory of the General College. None of the control students had been exposed to the occupational course. The students were compared on the basis of the Minnesota College Aptitude Test and high-school scholarship. These data, summarized in Table I, indicated that the Arts College control group was superior, on the average, to the General College experimental group and that the Writing Laboratory control group was slightly superior, on the average, in high-school scholarship but with slightly greater variability.

RESULTS OF THE EXPERIMENT

Gains of experimental groups.—The results of this experiment, given in Table II, indicated that the amount of gain for the three groups exposed for one quarter to the instruction on occupations varied from fourteen points to twenty-seven points on the examination, all gains being statistically significant as measured by the critical ratios. The amount of gain was greater for the last two quarters despite the lower initial scores. Perhaps the cause lies in the instructor's greater effort in these two quarters, especially in the spring quarter, to see what results could be produced under "forced

draft." Needless to say, the instructor did not see these statistics until after the close of the spring quarter and did not consciously try to coach for the examination, which had been constructed and standardized in the academic year 1934-35. The Writing Laboratory and the Arts College control groups gained much less, the average gain being slightly more than seven points, although these gains were also statistically significant. The variability of all groups

TABLE I
COMPARISON OF THREE EXPERIMENTAL GROUPS RECEIVING INSTRUCTION
IN OCCUPATIONS AND TWO GROUPS OF CONTROL STUDENTS*

GROUP	PERCENTILE ON COLLEGE-APTITUDE TEST			PERCENTILE ON HIGH-SCHOOL SCHOLARSHIP		
	Number of Students	Mean	Standard Deviation of Distribution	Number of Students	Mean	Standard Deviation of Distribution
Groups receiving instruction in occupations:						
Autumn quarter.....	27	31.22	26.47	31	33.40	26.10
Winter quarter.....	48	27.04	26.38	41	29.93	25.34
Spring quarter.....	34	26.44	18.41	27	39.04	20.11
Control groups:						
Students in Writing Laboratory, winter quarter	83	24.99	22.66	59	42.01	28.37
Freshmen in Arts College, autumn quarter.....	68	68.81	33.79	49	71.22	23.54

* The total number of students in each group is given in Table II. The test and high-school scholarship percentiles were not available for some students.

was only slightly affected by the gains in test scores. The correlation coefficients between pretest and retest after one month's interval indicated that the ranks of the control group were less disturbed than was true of two of the three experimental groups. A further analysis in terms of gain made by men and women separately (not shown in the tables) indicated that, in general, the men gained slightly more after one quarter's instruction than did the women.

Gains of control groups.—It is interesting to note in Table II that the critical ratios for both experimental and control groups are statistically significant. Two of the three experimental groups exhibited gains with larger critical ratios than did the two control groups.

Mention should be made of the significant gains of the control groups before a second method of analyzing gains for all groups is presented. Part of these group gains are, of course, the result of practice effect or simple gain from taking the *same* examination twice. The size of the critical ratios, however, indicates the operation of more potent factors in the control groups. The writer makes the following assumptions and interpretations. Were a study being

TABLE II
SCORES ON PRETEST AND RETEST ON OCCUPATIONS MADE BY THREE EXPERIMENTAL GROUPS RECEIVING INSTRUCTION IN OCCUPATIONS AND TWO GROUPS OF CONTROL STUDENTS

GROUP	NUMBER OF STUDENTS	SCORE ON PRETEST		SCORE ON RETEST		AVERAGE GAIN	CRITICAL RATIO	CORRELATION BETWEEN PRE-TEST AND RE-TEST
		Mean	Standard Deviation of Distribution	Mean	Standard Deviation of Distribution			
Groups receiving instruction in occupations:								
Autumn quarter.....	27	103.17	13.07	117.28	14.51	14.11	6.06	0.62
Winter quarter.....	35	93.30	15.01	120.20	13.95	26.90	10.56	.46
Spring quarter.....	50	95.28	17.05	120.64	15.20	25.36	8.61	.17
Control groups:								
Students in Writing Laboratory, winter quarter.....	87	92.61	15.40	100.06	14.48	7.45	6.43	.74
Freshmen in Arts College, autumn quarter.	72	103.83	13.68	111.17	11.42	7.34	5.74	0.64

made of a subject such as Spanish, which is not discussed or learned in other courses, a control group not subjected to specific instruction would not be expected to show a significant gain. Since there is desirable co-ordination among the various courses in the General College, a control group is subjected to some instruction in vocational information in the courses on "Economic Life," "Physics and Chemistry," "Formation of Public Opinion," and other courses which describe the activities of men in occupational fields rather than being limited to instruction in tool skills. Similar overlapping is found with the course in "Practical Applications of Psychology," since the instructor discusses at some length the topic of choosing

a vocation. A similar explanation may be made with regard to the significant gains made by the Arts College control group. Instruction in chemistry carries with it information concerning the work of a chemist. Moreover, students acquire vocational information in both colleges through the media of faculty counselors, independent reading, University lectures, and discussions with other students. The problem then becomes one of determining the *relative* efficacy

TABLE III
COMPARISON OF AVERAGE GAINS MADE BY EXPERIMENTAL
GROUPS WITH GAINS MADE BY CONTROL GROUPS

Groups Compared	Critical Ratio between Group Means on Pretest*	Critical Ratio between Group Means on Retest*
Autumn quarter Vocations vs. Writing Laboratory (winter quarter).....	+3.51	+5.39
Autumn quarter Vocations vs. Arts College (autumn quarter).....	-0.22	+1.97
Winter quarter Vocations vs. Writing Laboratory (winter quarter).....	+0.23	+7.14
Winter quarter Vocations vs. Arts College (autumn quarter).....	-3.50	+3.33
Spring quarter Vocations vs. Writing Laboratory (winter quarter).....	+0.91	+7.76
Spring quarter Vocations vs. Arts College (autumn quarter).....	-2.95	+3.54

* A plus sign before the critical ratio indicates a difference in favor of the group receiving instruction in occupations; a minus sign, a difference in favor of the control group. See Table II for the mean scores and standard deviations of the distributions.

of the occupational instruction in producing group gains as contrasted with gains resulting from many other college and university activities.

A SECOND ANALYSIS OF RESULTS

A second comparison of gains exhibited by the experimental and the control groups is presented in Table III to show the *relative* effect of specific instruction. Critical ratios were computed between the mean of each experimental group and that of each control group at the beginning and again at the end of the academic quarter. These ratios are presented under the captions "pretest" and "retest." The data show that the mean score of the autumn class in occupations was significantly higher than that of the Writing Laboratory group on the pretest and even higher on the retest. The

Arts College group was equal on the pretest, but the class in occupations gained significantly more on the retest as shown by the critical ratio of 1.97. The winter and the spring classes in occupations were about equal on the pretest to the Writing Laboratory group, but the critical ratios on the retest were significantly higher for the experimental groups and indicated a much greater average gain. The average score on the pretest for the winter class in vocations was significantly *lower* than that of the Arts College group, but the experimental group gained such an amount that its mean score on the retest was significantly *higher* than that of the control group. A similar reversal of relationship between scores is shown for the spring-quarter class in vocations as compared with the Arts College control group. In these two cases specific instruction in occupational information produced a significant gain despite a lower initial mean score and despite lower average academic ability for the experimental group.

CONCLUSION

This attempt to provide a course in occupational information at the college level has resulted in gains in knowledge about occupations and about how students may and should choose their occupations. The amounts of these gains are significantly greater than those resulting from college residence without specific instruction, although it appears that college Freshmen do increase their knowledge of occupations to some extent from instruction in other subjects or from other sources. Apparently, then, instruction in vocations can produce gains in the amount of occupational information as measured by a standardized examination. The problem of determining the *significance* of instruction in this course in terms of students' scholastic and vocational adjustments involves questions of the validity of instruction, which are being subjected to separate investigation.

SELECTED REFERENCES ON SECONDARY-SCHOOL INSTRUCTION

II. THE SUBJECT FIELDS

LEONARD V. KOOS AND COLLABORATORS

The same grouping of subject fields is being followed for the lists of references in the February and March numbers of the *School Review* as was used in the cycles of lists published during 1933-36, inclusive. The concept of "instruction" is likewise the same, including curriculum, methods of teaching and study and supervision, and measurement. In each subject field the list includes items published during a period of approximately twelve months since the preparation of the list published last year.

ENGLISH¹

R. L. LYMAN

Particular attention is directed to Item Number 439 (*An Experience Curriculum in English*) in the list appearing in the October, 1936, issue of the *Elementary School Journal*, which is there characterized as "the most important document issued in many years dealing with English problems of the elementary-school, secondary-school, and college levels."

60. ADAMS, A. ELWOOD. *The Use of Libraries in Junior and Senior High Schools*. Southern California Education Monographs, No. 8. Los Angeles, California: University of Southern California Press, 1936. Pp. x+106.
Covers the aims, administration, extent of pupil reading, departmental use, and group use of secondary-school libraries. Includes a bibliography.
61. AMERICAN COUNCIL ON EDUCATION, COMMITTEE ON EDUCATIONAL TESTING. "The 1935 College Sophomore Testing Program," *Educational Record*, XVI (October, 1935), 444-81.

¹ See also Item 561 (Boucher) in the list of selected references appearing in the December, 1935, number of the *School Review*, Item 423 (Traxler and Anderson) in the June, 1936, number of the *School Review*, Item 499 (Sarbaugh) in the October, 1936, number of the *School Review*, and Item 561 in the November, 1936, number of the *School Review*.

- The data from representative colleges indicate that nearly a third of the college Seniors are below the Freshman median in literacy as measured by English tests, that more than a third of the Seniors are below the twelfth-grade median, and that about a fifth of the Seniors are below the tenth-grade median.
62. ASH, IRVIN O. "An Experimental Evaluation of the Stylistic Approach in Teaching Written Composition in the Junior High School," *Journal of Experimental Education*, IV (September, 1935), 54-62.
Reports that a high correlation exists between excellence in content and in form; that many phases of form improve without being given definite attention; and that instructional emphasis may wisely be placed on content, orderliness, and adaptation to readers, rather than on language technicalities.
63. BYRNS, RUTH, and HENMON, V. A. C. "Reading Interests of High-School Seniors," *English Journal*, XXV (January, 1936), 61-64.
A study based on data from the applications of candidates for the Freshman class in the University of Wisconsin. The evidence on the students' reading of books, magazines, and newspapers indicates that twelve years of school training had done little to cultivate interest and taste in reading.
64. COOK, LUELLA B. "Reading for Experience," *English Journal*, XXV (April, 1936), 274-81.
A vigorous presentation of the point of view that children should develop "patience with books" under teachers' guidance. A protest against enjoyment as "vague emotional response."
65. CROSS, NEAL M. "World Literature for High Schools," *Secondary Education*, V (January, 1936), 7-10.
A suggestive program for a high-school course outlining grade placement, aims, methods, and materials. A challenge to any high-school English department.
66. DOUGLASS, HARL R., and KITTELSON, CLIFFORD. "The Transfer of Training in High School Latin to English Grammar, Spelling, and Vocabulary," *Journal of Experimental Education*, IV (September, 1935), 26-33.
Data indicate that the effects of instruction in Latin on English usage are so slight that the conventional argument for Latin is of doubtful validity.
67. GAFFNEY, MATHEW P. "Experimental College Entrance Units: III. A Fused Course in History and English for the Tenth Grade," *North Central Association Quarterly*, X (January, 1936), 353-56.
A description of an integrated course, which includes also work in art and music.
68. GRIFFIN, LOIS MERRILL. "Free Reading in Junior High School," *Wilson Bulletin for Librarians*, X (November, 1935), 188-91.
An outline of an admirable guidance program in library reading.
69. HEALY, KATHARINE L. "Study of the Factors Involved in the Rating of Pupils' Compositions," *Journal of Experimental Education*, IV (September, 1935), 50-53.

By the use of an analytical chart for the qualitative analysis of compositions, the markings of five compositions by each of fifty teachers were evaluated. Teachers fail to distinguish merit sharply, tend to mark too generously, and tend to give undue weight to the mechanics of writing.

70. JENCKE, GRACE ELIZABETH. *A Study of Précis Writing as a Composition Technique*. Teachers College Contributions to Education, No. 644. New York: Teachers College, Columbia University, 1935. Pp. vi+106.
By means of controlled experiments at the high-school and college levels, the author measured the validity of précis writing as a composition technique and concluded that claims for the method have been extravagant.
71. JONES, CARLETON C. "Evaluating Achievement in Literature," *Educational Method*, XV (May, 1936), 416-21.
A sharp arraignment of standardized literature tests as failing to reveal significant attainments and pointing the emphasis in teaching to nonessentials which appertain but slightly to understanding and appreciation.
72. JONES, HOWARD MUMFORD. "The Orphan Child of the Curriculum," *English Journal* (College Edition), XXV (May, 1936), 376-88.
A convincing argument for increased emphasis on American literature in high school and college.
73. LOS ANGELES CITY SCHOOL DISTRICT. *The American Epic: Part I, Themes I-IV, Seventh and Eighth Year Social Studies*. School Publication No. 276. Los Angeles, California: Los Angeles City School District, 1936 (revised). Pp. 160.
The four "themes" develop chronologically: "America Discovered," "The Colonial American at Home," "New Governments in the New World," and "The Frontiersman." Inherent in the learning activities are the reading of literature, certain descriptive phases of art and music, as well as the acquisition of skills in writing and speaking the mother-tongue.
74. LYMAN, R. L. "English in Relation to Three Major Curriculum Trends," *English Journal*, XXV (March, 1936), 190-99.
The trends are the attempts to secure unity of design in educational experiences, to relate instruction to the immediate needs of daily life, and to reduce extreme departmentalization by suitable correlations and integrations.
75. MCCCLUSKY, HOWARD Y., and COLEMAN, CREIGHTON. "An Experimental Study of Language Patterns," *English Journal*, XXV (January, 1936), 52-53.
Conclusions indicate that for practical purposes the sentence is probably more important in itself than is its location in the paragraph. Definite instruction should be given in techniques of the thought pattern.
76. MICHIGAN COMMITTEE ON THE ARTICULATION OF HIGH SCHOOL AND COLLEGE ENGLISH. *Preparation for College English*. University of Michigan Official Publication, Vol. XXXVII, No. 8. Ann Arbor, Michigan: University of Michigan, 1935. Pp. 52.

- This bulletin presents a most enlightened statement of college-entrance requirements and a valuable scale for evaluating Freshman compositions.
77. POOLEY, ROBERT C. "Measuring the Appreciation of Literature," *English Journal*, XXIV (October, 1935), 627-33.
Proposes a plan which appraises both emotional responses arising from fundamental recognitions and the apprehension of the causes by which the emotional responses are brought about. A sensible interpretation of the relations between comprehension and appreciation.
78. PUNKE, HAROLD H. "Leisure-Time Attitudes and Activities of High-School Students," *School and Society*, XLIII (June 27, 1936), 884-88.
Presents particularly illuminating evidence on leisure-time occupations, which is of vital significance for teachers of English.
79. ROBBINS, PHYLLIS. *Incentives to Composition*. Harvard Studies in Education, Vol. XXVII. Cambridge, Massachusetts: Harvard University Press, 1936. Pp. xvi+516.
A companion volume to the author's *An Approach to Composition through Psychology*. Details a program by which classes in composition seek appropriate materials for composition in the fields of science, adventure, nature, and fine arts.
80. ROBERTS, HOLLAND D., and KAULFERS, WALTER V. "Integration in Language Arts," *School Review*, XLIII (December, 1935), 737-44.
The authors analyze the problems of integration in the language arts and indicate many ways in which composition, reading, and even the study of literature may be informally associated with the work in foreign languages.
81. ROOS, MARY M. "Sampling Theory as Used in the Determination of Psychological Trends in Volume Mail," *Journal of Applied Psychology*, XX (June, 1936), 368-91.
An analysis of 2,544 sample letters from the mail of the President of the United States and of 1,012 letters and telegrams received by the Federal Civil Works Administration and the Federal Emergency Relief Administration. Gives data on the occupations, sex, race, and motivation of the writers of the letters.
82. SMITH, DORA V., and McCULLOUGH, CONSTANCE. "An Analysis of the Content of Placement Tests in Freshman English Used by One Hundred and Thirty Colleges and Universities," *English Journal*, XXV (January, 1936), 17-25.
More than 65 per cent of the items test ability in correct usage, spelling, and punctuation; nearly 20 per cent test ability in vocabulary and word meanings; and about 10 per cent cover matters of sentence structure. Only minor emphasis is placed on classified grammar items.
83. SMITH, REED. *The Teaching of Literature in the High School*. New York: American Book Co., 1935. Pp. viii+486.
The most recent general treatise on the subject. A valuable aid, especially for inexperienced teachers, in all aspects of the teaching of literature as a fine art.

84. TYLER, I. KEITH. "Radio in the High School," *Educational Research Bulletin*, XIV (November 13, 1935), 208-12.
Points out the responsibility of schools to take into account the new educational factor. More than 90 per cent of boys and girls in some communities have access to radios. The necessity for the development of standards of appraisal is assuming great importance.
85. TYLER, I. KEITH. "The Listening Habits of Oakland (California) Pupils," *English Journal* (College Edition), XXV (March, 1936), 206-15.
Reveals that 98 per cent of 700 junior and senior high school pupils in Oakland are exposed at home to radio programs; that pupils spend an average of over two and a third hours a day in a room where a loud-speaker is turned on; that their tastes are low; that most popular programs are "pure hokum and slapstick." Teachers of art, music, and literature are challenged to meet the obvious problems.
86. WHITE, M. M., and POWELL, MARJORIE. "The Differential Reaction-Time for Pleasant and Unpleasant Words," *American Journal of Psychology*, XLVIII (January, 1936), 126-33.
A study which attempts to isolate the factors which determine the differential recall of pleasant and unpleasant experiences. The unpleasant involve inhibitions.
87. WILLIAMSON, E. G. "Estimation versus Measurement of Improvement in English," *School and Society*, XLII (August 3, 1935), 159-62.
Demonstrates that a logical, fair, and consistent measurement of college students' growth in basic English skills can be made by the use of standardized and comparable tests.

THE SOCIAL SCIENCES¹

R. M. TRYON

88. ALEXANDER, THOMAS. "New College Program for the Education of Teachers of Social Science," *Educational Administration and Supervision*, XXII (September, 1936), 447-70.
A somewhat extended description of the existing program for the training of teachers of the social sciences in a college within a college. Provisions for personal development, development as a citizen, and professional development of the prospective teacher are emphasized.
89. ANDERSON, HOWARD R., and LINDQUIST, E. F. *Selected Test Items in American History*. National Council for the Social Studies Bulletin, No. 6. Cambridge, Massachusetts: National Council for the Social Studies (Howard E. Wilson, Secretary, % Harvard University), 1936. Pp. 88.

¹ See also Items 368 and 377 in the list of selected references appearing in the September, 1936, number of the *Elementary School Journal*, and Item 491 (Weaver) in the October, 1936, number of the *Elementary School Journal*.

- A choice selection of test items in American history that originally appeared in the Iowa Every-Pupil Tests for the years 1929-35.
90. DAVIS, WILLIAM R. *Social Science Instruction and the New Curriculum*. Dallas, Texas: Turner Co., 1936. Pp. x+90.
A report of work done in the social-science courses in schools of Sabine County, Texas. Of much value to educators who wish to base courses in the social sciences on the needs of contemporary life. The absence of dogmatic statements and fine-spun theories will be refreshing to the realist.
91. DOUGLASS, HARL R., and PEDERSON, KENNETH L. "An Experimental Evaluation of a Unit Procedure in Teaching American History," *School Review*, XLIV (May, 1936), 262-71.
An account of an experiment to determine the relative merits of a unit-mastery plan of teaching history and the divided period of supervised study with study-recitation organization. The former plan was found to be slightly superior.
92. FREDERICK, ROBERT WENDELL, and SHEATS, PAUL H. *Citizenship Education through the Social Studies*. Evanston, Illinois: Row, Peterson & Co., 1936. Pp. viii+312.
A presentation of a philosophy and a program for the social sciences in junior and senior high schools. Maintains that what the pupils do and how they think are of more significance in teaching the social sciences than the specific content.
93. GRIM, PAUL R. "A Technique for the Measurement of Attitudes in the Social Studies," *Educational Research Bulletin*, XV (April 15, 1936), 95-104.
A description of the technique used in the construction of two scales of beliefs intended (1) to determine the points of view of high-school pupils on militarism, nationalism, racialism, democracy, economic individualism, and labor and unemployment; (2) to give evidence concerning the strength or intensity of these attitudes; and (3) to reveal inconsistencies in attitudes.
94. HAMPTON, VERNON B. *New Techniques in Social Science Teaching*. Stapleton, New York: John Willig Press, 1936. Pp. 312.
A volume to which the words "interesting," "inspirational," "original," and "sensible" are applied by the author of the Foreword. The book is primarily intended for the inexperienced teacher. The abundance of specific devices and concrete illustrations is one of its chief assets.
95. HAMPTON, VERNON B. *Reorganizing the Social Studies*. Stapleton, New York: John Willig Press, 1936. Pp. 60.
A plea for the recognition of the social sciences in high-school education in proportion to their importance in current living, along with a few suggestions for the improvement of the content of sociology, civics, geography, and character education.
96. HODGE, PAUL HARTMAN. "Vitalizing Civics in the Senior High School," *Education*, LVI (June, 1936), 596-601.

A discussion of the objectives and the general content of a course in community life. Five units are included in the course.

97. KEPNER, TYLER. "History Reading Groups in the Library," *Wilson Bulletin for Librarians*, X (April, 1936), 507-11.

An account of an experiment in recreational reading with seven divisions of a non-college group of pupils in a class in American history in the senior high school at Brookline, Massachusetts.

98. LEVINE, MICHAEL. "Social Problems in Present Curricula," *High Points in the Work of the High Schools of the City of New York*, XVIII (June, 1936), 13-22.

The results of an analysis of thirteen textbooks in American history, published for use in the senior high school, in terms of the emphasis given to each of fifteen problems of contemporary American life.

99. MARSHALL, LEON C., and GOETZ, RACHEL MARSHALL. *Curriculum-making in the Social Studies*. Report of the Commission on the Social Studies of the American Historical Association, Part XIII. New York: Charles Scribner's Sons, 1936. Pp. xviii+252.

An exposition of a social-process approach to curriculum-making. It is chiefly concerned with a general consideration of six basic processes of society. An especial effort is made throughout the volume to connect the general treatment with instruction in the social sciences.

100. MELBO, IRVING R., and SWENSON, LOUIS. "Student Interests and Attitudes on Contemporary Problems," *Clearing House*, XI (September, 1936), 25-28.

A summary of the existing evidence relative to the interest of secondary-school pupils in social, economic, and political problems of present-day American life and the consistency and character of their views concerning these problems.

101. NUTTER, HAZEN E., and BOYD, ADDIE. "World History from a New Viewpoint," *Educational Method*, XVI (October, 1936), 30-34.

An account of how a unit of understanding in world-history was vitalized through organization, teaching procedure, and assimilative materials.

102. O'CONNOR, ELLEN M. "An Experiment in History," *High Points in the Work of the High Schools of the City of New York*, XVIII (May, 1936), 46-50.

A brief account of the procedure followed in the teaching of modern European history to the brighter pupils in the James Madison High School, New York City.

103. SALISBURY, W. L. "How a Rural Community Adjusted the Social Studies Curriculum," *Education*, LVI (January, 1936), 311-14.

The use made by one rural area of the community survey to enrich and make real a traditional course in high-school history.

104. SHROPSHIRE, OLIVE E. *The Teaching of History in English Schools.* Teachers College Contributions to Education, No. 671. New York: Teachers College, Columbia University, 1936. Pp. viii+190.
An account of history in the schools of England, with particular emphasis on the present status of the subject in elementary and secondary schools. History in the professional preparation of teachers today is also treated briefly. Chiefly based on unprinted sources.
105. WALKER, ERIC C. *History Teaching for Today.* London: James Nisbet & Co., Ltd., 1935. Pp. x+188.
A penetrating examination of some of the crucial problems associated with the teaching and learning of history. While the author centers his attention on present-day history-teaching in England, nevertheless his constructive suggestions will be helpful to teachers of history in other countries, especially teachers in the United States.
106. WORTS, F. R. *The Teaching of History in Schools.* London: William Heinemann, Ltd., 1935. Pp. xiv+204.
An attack on the ultra-academic and ultra-scientific aspects of the system of history-teaching as it now exists in England. History teachers in the United States will find many of their own difficulties reflected in this volume. The constructive suggestions that it contains are universally applicable.

GEOGRAPHY¹

EDITH P. PARKER

107. CREWSON, WALTER S. "Teaching Unit: A Type Area in the Los Angeles Citrus Fruit District," *Journal of Geography*, XXXV (January, 1936), 24-30.
Outlines in detail materials used and teacher and pupil activities involved in the unit.
108. DOUGLAS, MARY M. "Geography in the Secondary School," *School* (Secondary Edition), XXIV (October, 1935), 139-43; (November, 1935), 222-25; (December, 1935), 319-21; (January, 1936), 416-19; (March, 1936), 589-94; (April, 1936), 687-91; (June, 1936), 862-64.
Makes definite suggestions concerning materials, procedures, and tests useful in specific units in commercial geography.
109. EKBLAW, W. ELMER. "The Function of Geography," *Business Education World*, XVII (September, 1936), 1-5.
Stresses and concretely illustrates cultural and practical values potential in geographic work.
110. HALSEY, JAMES H. "An Experiment in Geography Teaching," *Educational Screen*, XV (May, 1936), 137-40.

¹ See also Item 495 (Blood) and Item 505 (Parker) in the list of selected references appearing in the October, 1936, number of the *Elementary School Journal*.

- Reports results from the use of motion pictures in high-school classes in geography.
111. HUDGINS, BERT. "Geography in a Liberal Arts Curriculum," *Education*, LVI (February, 1936), 371-75.
Discusses the relation of geography to social studies and literature and stresses the need for more geography in secondary schools.
112. *Journal of Geography*, XXXV (March, 1936), 82-122.
The whole issue is devoted to high-school geography and includes the following articles: "Political Geography in the High School," by Nels A. Bengtson; "Teaching Geographic Relations in World Problems," by Otis W. Freeman; "Geographic Interdependence," by J. E. Switzer; "Geography in the Senior High School," by James F. Chamberlain; "Human Geography for the Senior High School," by J. R. Schwendeman; and "The Place of Geography in the Senior High School with Special Reference to Texas," by Edwin J. Foscue.
113. LACKEY, EARL E. "The Need for Geographic Education in the Senior High School," *School and Society*, XLIV (September 12, 1936), 329-35.
Emphasizes and gives illustrations of the bearing of geographic work in solving various current problems.
114. MILLER, WILLIS H. "Modern Geography and Current Events," *Journal of Geography*, XXXV (October, 1936), 279-84.
Tells of sources, use, and value of current-events material in teaching geography.
115. PARSONS, JOHN C. "A Plea for Social and Economic Geography," *Journal of Business Education*, XI (February, 1936), 15-16.
Advocates changes in name, point of view, content, and procedure in courses in high-school geography.
116. PARSONS, JOHN C. "A Regional Approach to High School Geography," *Journal of Business Education*, XII (September, 1936), 25-26.
Cites advantages of a course organized around climatic regions.
117. RAISZ, ERWIN. "Rectangular Statistical Cartograms of the World," *Journal of Geography*, XXXV (January, 1936), 8-10.
Describes and illustrates a scheme for presenting various types of statistical data.
118. RIDGLEY, DOUGLAS C. "The Study of Commodities," *Business Education World*, XVII (October, 1936), 95-97.
Suggests an introduction to a study of commodities and presents one illustrative unit.
119. SORENSEN, FRANK E. "The Influence of Specific Instruction on Map Interpretation," *Journal of Geography*, XXXV (November, 1936), 300-307.
Describes a study which shows need of instruction in interpreting maps.

120. STULL, DE FOREST. "Current Events via Geography," *Journal of Education*, CXIX (May 4, 1936), 268-70.

Gives suggestions for the use of current events in Grades III-VIII and Grade X.

SCIENCE

WILBUR L. BEAUCHAMP

121. BARNES, CYRUS W. "Criteria for the Selection of Science Teaching Materials," *Science Education*, XIX (December, 1935), 152-57.

Presents criteria for the proper selection of special equipment, supplies, apparatus, and specimens needed in the high-school science laboratory.

122. BAYLES, ERNEST E. "The Problem of Testing," *Science Education*, XX (February, 1936), 20-24.

Presents a method of testing for thoughtfulness which should supplement present methods of testing.

123. BRESLICH, E. R. "Integration of Secondary-School Mathematics and Science," *School Science and Mathematics*, XXXVI (January, 1936), 58-67.

Describes the various attempts to integrate science and mathematics and presents a plan for further study of the problem.

124. COMPTON, KARL T. "Science in Education," *Science Education*, XX (April, 1936), 53-55.

Discusses some of the problems in the teaching of science.

125. DAVIS, IRA C. "Problems and Techniques in General Science," *School Science and Mathematics*, XXXVI (February, 1936), 173-81.

Discusses teaching procedures in demonstrations, experiments, and problems.

126. DUEL, H. W. "The Effect of a Shortened Class-Period upon Achievement in High-School Physics," *Science Education*, XX (October, 1936), 157-59.

The results obtained in a period of twenty-four minutes are compared with those obtained in a period of fifty-four minutes.

127. HOFF, A. G. "A Test for Scientific Attitude," *School Science and Mathematics*, XXXVI (October, 1936), 763-70.

Presents a new test on the measurement of scientific attitudes.

128. KRENERICK, H. CLYDE. "Method of Accomplishing Laboratory Work in a Single Period," *School Science and Mathematics*, XXXVI (May, 1936), 512-23.

Shows how systematization of procedure makes it possible to complete laboratory work in a single period.

129. LEICHTMAN, ALFRED W. "News Notes for Natural Science Teachers," *School Science and Mathematics*, XXXVI (March, 1936), 289-92.

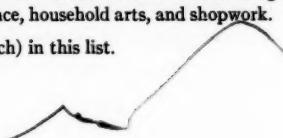
Rates various publications which have news notes of interest to teachers of natural science.

130. McCALMONT, JOHN K. "The Instructional Background of General-Science Pupils in a City Community," *School Review*, XLIV (April, 1936), 291-97.
Describes a method of determining the instructional background of general-science pupils in order that instruction may be adapted to community needs.
131. NEUREITER, P. R. "A New List of Objectives for Teaching Chemistry," *School Science and Mathematics*, XXXVI (March, 1936), 273-77.
Classifies objectives from the point of view of the teacher, of the pupil in school, and of the pupil after leaving school.
132. OSBORNE, R. W. "Experimental College Entrance Units: V. A Modified Program in Science," *North Central Association Quarterly*, X (January, 1936), 359-64.
Describes the science program in Grades VII-IX, inclusive, in the Francis Parker School, Chicago. The plan emphasizes the training of pupils in the methods and habits of correct scientific thinking.
133. SCHLESINGER, H. I. "Important Criteria in Evaluating Laboratory Work," *Education*, LVI (March, 1936), 393-96.
Presents suggestions for the use of the laboratory to train pupils "to see, to think, and to act."
134. WATKINS, RALPH K. "What Should the High School Science Teacher Know?" *Education*, LVI (March, 1936), 405-7.
Presents a summary of the knowledge requirements of a teacher of high-school science.
135. WISE, HAROLD E. "An Integration of Physics and Chemistry," *Science Education*, XX (April, 1936), 68-72.
Reviews the development of the curriculum in science and presents an attempt to integrate physics and chemistry as a further step in the development of the curriculum.

MATHEMATICS:

ERNST R. BRESLICH

136. BEATLEY, RALPH. "Third Report of the Committee on Geometry," *Mathematics Teacher*, XXVIII (October and November, 1935), 329-79, 401-40.
Presents six experimental programs for secondary-school mathematics. Gives notes on geometry that have been derived from periodicals, yearbooks, committee reports, books on methods, and textbooks on geometry.
137. BROWN, CHRISTINE A. "Learning To Use Mathematics," *Junior-Senior High School Clearing House*, X (September, 1935), 26-28.
Describes a plan by which mathematics is made an integral part of other school subjects, such as science, household arts, and shopwork.

¹ See also Item 123 (Breslich) in this list.

138. CARNAHAN, WALTER H. "Geometrical Constructions without the Compasses," *School Science and Mathematics*, XXXVI (February, 1936), 182-89.
The constructions outlined in this article will be of interest, not only to teachers, but also to the better pupils.
139. DICKTER, M. RICHARD. "The Introduction to Plane Geometry," *School Science and Mathematics*, XXXVI (June, 1936), 585-91.
A series of lesson plans is presented which approach the study of geometry by means of geometric constructions.
140. ETTLINGER, H. J. "Mathematics as an Experimental Science," *National Mathematics Magazine*, X (October, 1935), 3-8.
Shows that four aspects of mathematics make it clear that mathematics is not alone an exact science but, in the literal sense of the word, directly *experimental*.
141. FAWCETT, HAROLD P. "Teaching for Transfer," *Mathematics Teacher* XXVIII (December, 1935), 465-72.
A thought-provoking discussion on teaching geometry as a "way of thinking" which people need to employ in everyday life.
142. FULKERSON, ELBERT. "Teaching Thought Problems in Ninth Grade Algebra," *School Science and Mathematics*, XXXVI (April, 1936), 393-98.
Explains five steps in which pupils need training if they are to develop ability to solve the verbal thought problems of algebra textbooks.
143. GRIMES, RUBY M. "Why Mathematics?" *School Science and Mathematics*, XXXVI (April, 1936), 426-37.
A warning against elimination of mathematics as a required subject in secondary schools. Calls attention to the wide use of mathematics in many fields besides astronomy, physics, and chemistry.
144. GUILER, WALTER SCRIBNER. "Improving Ability in Fractions," *Mathematics Teacher*, XXIX (May, 1936), 232-40.
A report of the procedure and results of a project in diagnosis and remedial work in arithmetical fractions.
145. HASSSLER, J. O. Abstract of "An Evaluation and Comparison of Objective and Subjective Tests in Mathematics," *American Mathematical Monthly*, XLIII (June-July, 1936), 327-28.
Reports on two experiments with objective and subjective tests and presents the conclusions reached.
146. HASSSLER, J. O., and OTHERS. "Readings in the Literature on Teaching with Special References to Mathematics," *American Mathematical Monthly*, XLII (October, 1935), 472-76.
A committee appointed by the Commission on the Training and Utilization of Advanced Students of Mathematics presents a bibliography on (1) "Psy-

- chology and Methods of Teaching," (2) "The Teaching of Algebra and Geometry," (3) "Supplementary Reading," and (4) "Readings for Prospective College Teachers."
147. HOTELLING, HAROLD. "Some Little Known Applications of Mathematics," *Mathematics Teacher*, XXIX (April, 1936), 157-69.
An interesting discussion of the wide uses of mathematics in practically all fields of knowledge. Illustrations are given from physics, astronomy, mechanics, chemistry, geology, statistics, social sciences, economics, political science, law, literature, and psychology, to show that the educated man or woman of the coming generation cannot neglect to study mathematics.
148. HUMMER, VIVIAN L. "A Comparison of I.Q. and Achievement in Plane Geometry," *School Science and Mathematics*, XXXVI (May, 1936), 496-501.
The scores of 153 tenth-year geometry pupils were analyzed to make a comparison of intelligence quotient and achievement in plane geometry. The evidence indicates that failure in geometry is likely to occur if the intelligence quotient is between 100 and 110 or below.
149. JACKSON, NELSON A. "Vocabulary in Beginning Algebra," *School Science and Mathematics*, XXXV (October, 1935), 690-94.
A series of tests on the meaning of words was administered to a group of pupils in beginning algebra. It appears that in the usual course the pupil does not assimilate the new vocabulary.
150. JOHNSON, ALVIN W. "Trends in High School Mathematics," *School Science and Mathematics*, XXXVI (May, 1936), 468-70.
A study of the amount of time allotted during the past thirty-five years to the various mathematical subjects in the secondary schools of Nebraska.
151. MALLORY, VIRGIL S. "Activity in Mathematics—The Slow-moving Pupil," *Mathematics Teacher*, XXIX (January, 1936), 23-26.
Submits a course for slow-moving pupils in mathematics, together with the criteria for the selection of the materials, objectives to be attained, equipment needed, and the activities to be carried on by the pupils.
152. MOULTON, E. J. "The Future of Mathematics," *School Science and Mathematics*, XXXVI (February, 1936), 124-37.
The writer summarizes his outlook for mathematics in three statements: (1) Mathematical research will become more important. (2) Mathematics will retain an important place in the curriculum. (3) The teachers of mathematics will be more uniformly well prepared.
153. NYBERG, JOSEPH A. "Mathematics for the Non-Collegiate," *School Science and Mathematics*, XXXV (December, 1935), 905-10.
The article contains an outline of a course in mathematics designed for pupils not planning to go to college.

154. ORLEANS, JOSEPH B. "Testing the Ability To Study," *Mathematics Teacher*, XXIX (April, 1936), 170-77.
An attempt to measure pupils' ability to study mathematical materials by themselves. The tests and the distributions of scores of the pupils are presented.
155. PALEY, GEORGE L. "A Unit of Statistics in Ninth Year Mathematics: An Experiment," *High Points in the Work of the High Schools of the City of New York*, XVIII (September, 1936), 16-25.
A unit on statistics was taught to thirty-seven pupils in mathematics in Grade IX B. A test given at the end of the unit is described and interpreted. The pupils found the unit interesting and not difficult.
156. REEVE, W. D. "Research in Mathematics Education," *Mathematics Teacher*, XXIX (January, 1936), 6-9.
Gives illustrations of various types of research in mathematics education and suggests topics suitable for research.
157. ROSANDER, A. C. "Quantitative Thinking on the Secondary School Level," *Mathematics Teacher*, XXIX (February, 1936), 61-66.
The author stresses the importance of educating people so that they will think quantitatively in everyday affairs. He believes that mathematics alone can accomplish this result and gives some striking illustrations of the faulty quantitative thinking which is presented in newspapers and magazines.
158. SANGER, RUTH B. "Correlating Geometry and History," *Progressive Education*, XII (November, 1935), 470-72.
A report of an experiment at Winsor School, Boston, in which geometry was integrated with history and the history of art.
159. SCHAAF, WILLIAM L. "Current Trends in Junior High School Mathematics," *School Science and Mathematics*, XXXV (December, 1935), 959-69.
A discussion of 152 replies to a questionnaire formulated to determine trends in junior high school mathematics.
160. SCHNELL, LEROY H. "A Redefinition of Secondary School Mathematics," *Mathematics Teacher*, XXIX (January, 1936), 14-19.
The view is expressed that mathematics must either become a tool to facilitate clear, accurate, logical, and quantitative thinking in every problem situation or lose its claim to prominence in the curriculum.
161. SISAM, C. H. "Some Comments on the Secondary Mathematics Situation," *National Mathematics Magazine*, X (October, 1935), 25-27.
At the present the high-school pupil is not likely to be taking mathematics during the last two years. It is suggested that the pupils' mathematical training be delayed for a year throughout the entire course by transferring the work of each grade to the next higher.

162. STALLARD, BURTON J., and DOUGLASS, HARL R. "An Experimental Study of Two Plans of Supervised Study in First Year Algebra," *School Science and Mathematics*, XXXVI (January, 1936), 78-81.
A long-unit assignment plan is compared with a daily assignment plan. The first is favorable to superior pupils. No significant differences between the two plans was found for pupils of average ability.

FOREIGN LANGUAGES

FRANCIS F. POWERS
University of Washington

163. BAUMANN, CARL. "Why Study Foreign Languages?" *Modern Language Forum*, XXI (February, 1936), 31-37.
A statement of the value of foreign languages as a medium of real experience. Grammar learned as theory is immediately applied and becomes to the student an indispensable tool, whereas most other academic studies remain theoretical. A keen and convincing evaluation.
164. BETTERIDGE, H. T. "The First Term's Work in German," *Modern Languages*, XVIII (October, 1936), 26-32.
A summary and criticism of contents of five textbooks in first-year German. The criticisms can be applied with advantage to teaching materials and methods in general.
165. BRANNON, C. H. "Contributions to Citizenship by Modern Language Courses in Scientific Literature," *Modern Language Journal*, XX (February, 1936), 259-64.
Modern foreign languages, especially French and German, are essential to the scientist because many vital contributions in that field appear in these languages. The general cultural advantages of language study and its promotion of good citizenship also command its inclusion in the curriculum.
166. FRANK, COLMAN D. "French in a Changing World," *High Points in the Work of the High Schools of the City of New York*, XVIII (October, 1936), 12-15.
The Americanization of the French language is here profusely and amusingly illustrated by citing words and phrases which are heard on the streets of Paris and read in the daily newspapers of France. Likely to give the teacher a less exacting point of view about formal French and guaranteed to supply an amusing half-hour in the French class.
167. GREENE, WESLEY. "Foreign Films for Educational Institutions," *Educational Screen*, XV (September and October, 1936), 211-12, 246.
A critical examination of available foreign-made films which are suitable for students. A clear discussion of a subject concerning which all foreign-language teachers should be informed.

168. GULLETTE, CAMERON C. "Suggestions for a Spanish Club Calendar," *Modern Language Journal*, XX (May, 1936), 459-67.
Spanish classes or clubs will be able to enliven activities and to give emphasis to the cultural and historical aspects of Spanish study by the use of this calendar, which has been aptly compiled from a mass of available material.
169. HAYCOCKS, N. "The Educational Film and Modern Studies," *Modern Languages*, XVII (April, 1936), 135-40.
Films are valuable to the foreign-language class in a number of ways: in vocabulary development by the effective linking of word to picture and action and in developing a cultural background upon which the linguistic structure is to function. A good source to consult before investing in films of this type.
170. JOHNSON, OSCAR EMANUEL. *Tense Significance as the Time of the Action*. Language Dissertations (University of Iowa Dissertation), No. 21. Philadelphia, Pennsylvania: Linguistic Society of America, University of Pennsylvania, 1936. Pp. 96.
A fairly technical but complete treatise on tense which, when followed through, will give the teacher or the scholar in language an adequate insight and sophisticated point of view concerning this category of grammar.
171. KAULFERS, WALTER V. "The Foreign Language Curriculum of the Future," *Hispania*, XIX (February, 1936), 13-24.
A critical survey of the foreign-language curriculum and analysis of its future tendencies given in clear and concise form. The article is unusually well documented, and the reader will be led to look up some of the excellent references.
172. KAULFERS, WALTER V. "Ser and Estar in Beginning Classes," *Modern Language Forum*, XXI (May, 1936), 87-91.
An approach which simplifies understanding of the correct use of these stumbling blocks to beginning Spanish students. Based on psychological rather than grammatical reasons. The points here made can be carried over advantageously to other language situations.
173. PRENTICE, WILLIAM K. "The Study of the Classics," *Classical Weekly*, XXX (October 5, 1936), 3-8.
A scholarly statement of aims and methods in the classical studies. Makes a plea for teachers with a thorough classical background who will be able to inspire a "feeling" for the classical spirit in literature, art, philosophy, etc.
174. RICHEBOURG, MARGUERITE, and MOEHLMAN, ARTHUR H. "The Modern Foreign Languages and the Social Sciences in Harmony: A Dialogue," *Modern Language Journal*, XX (January, 1936), 195-200.
The values of foreign-language study are expounded by means of a question-and-answer dialogue between a linguist and a social scientist. Foreign-language courses in the curriculum are effectively justified, and the logic and advantages of their alliance with the social sciences are made clear.

175. SPARKMAN, COLLEY F. "Grammar for the Reading Approach," *Hispania*, XIX (October, 1936), 353-60.

This author stresses the difference between grammar for purposes of reading and grammar necessary for self-expression in the foreign tongue, listing these in a convenient double-column tabulation. A thoughtful article, full of helpful suggestions for maintaining good mutual relations and progressive activity on the part of pupils and teachers.

176. THARP, JAMES B. "Third Annual Survey of Research and Experimentation in Modern Foreign Language Teaching," *Modern Language Journal*, XXI (October, 1936), 36-41.

This summary, with statistical tabulations, gives a brief, comprehensive survey of research and experiments carried on during the past year throughout the nation. It suggests the fields in which data and progress are lacking and lists categories of investigation which an individual or a group might desire to carry on in any locale.

177. WALDMAN, MARK. "Practical Instruction in German Pronunciation," *Modern Languages*, XVII (June, 1936), 206-15.

An entirely practical exposition of German language sounds with simple directions for attaining them. Written in amusing and lively style. Should be read by pupils and teachers.

Educational Writings

REVIEWS AND BOOK NOTES

Principles of adolescent psychology.—Since G. Stanley Hall's pioneer volumes dealing with adolescence, additional books on this subject have appeared periodically. These have profited from the gradual accumulation of data growing out of studies of youth. At the present time the factual evidence on which such a book may be based is considerably greater than it was even two decades ago. A book in this field by Luella Cole¹ differs from some of its predecessors in that it presents fewer tables and graphs and that the writing follows somewhat less the style of the ordinary textbook. On the whole, the book is one of the most interesting and readable which has come to the reviewer's attention.

In addition to an introductory chapter and a chapter summarizing conclusions, the content of the book is divided into three principal sections. In the first of these the author attempts to present a view of normal adolescence. She deals with physical developments, emotional characteristics, social traits, moral and religious attitudes, and the intellectual development of this period. In the second main section a series of chapters deals with different types of adolescents. After a chapter in which the characteristics of normality are set forth, the author deals with the delinquent adolescent, the emotional and the intellectual deviate, and with the vocational misfit. The third large division of subject matter is concerned with the adolescent's environment. The applications which the author draws in this section of her book go somewhat beyond the traditional type of treatment and are particularly stimulating. They represent a social rather than an individual point of view in dealing with the problem of adolescence.

The author professes three outstanding aims in preparing her volume: first, to base her work on only "pragmatically determined results"; second, to give a comprehensive treatment of the adolescent years; and, third, to make specific applications of the material presented. She has evidently tried to maintain these standards throughout her book, although the first aim is difficult to carry out. One of the most interesting characteristics of the book is its case illustrations, which are abundant and well written. The use of such case material guarantees a certain amount of interest on the part of the reader, but it may leave him with a biased view unless there is some assurance that the cases presented are typical.

¹ Luella Cole, *Psychology of Adolescence*. New York: Farrar & Rinehart, Inc., 1936. Pp. xvi + 504. \$3.00.

On this point the reviewer is somewhat skeptical, fearing that the picture of adolescence may necessarily be biased by the selection of cases, since at the present time there are not sufficient facts available to indicate just how typical given cases are. Furthermore, in the comments on case studies the author's point of view must necessarily color the interpretation of the material presented, and here again a distinction must be drawn between "pragmatically determined results" and interpretations of such results.

To illustrate the criticism in the previous paragraph, one might cite such a statement as the following: "The writer has known many girls who either would not go to dances at all or else were miserable if they did go, merely because they were always taller than any boy they danced with. And the short boys are equally depressed, not knowing that in a few years they will be considerably taller" (p. 21). Certainly, an observer of adolescent children will recognize the situation described, but, as far as the writer knows, it would be difficult either to support or to refute the implication that this attitude is a *typical* characteristic of adolescents. In many cases throughout the book the attempts to describe normality suffer from the lack of sure knowledge as to the adequacy of the sampling on which the author's statements are based. Likewise, the statement, "The small, pretty, empty-headed adolescent girl of every generation has caused altogether too much anxiety among the mothers of intelligent adolescent boys. Such attachments do not last long and represent a normal phase of masculine development" (p. 103), may represent a commonly observed situation, but it seems hardly to be classified as a generalization based on "pragmatically determined results."

On the whole, the book is replete with keen observations and thought-provoking illustrations. It will probably stimulate a more critical type of thinking than might have been produced by a book which held more strictly to the presentation of objective data without risking critical interpretations.

G. T. BUSWELL

Organizing and promoting physical activities among pupils.—Although physical education is a comparatively new part of the curriculum of the modern school, it has received extended treatment in educational books and periodicals. Within this literature occur descriptions of programs ranging from the formal-gymnastics type of physical education to programs based almost entirely on the results of recently developed tests in this field. A publication¹ describing the program of physical education and health in one of the country's well-known laboratory schools is characterized by a wholesome middle ground between these two extremes. Furthermore, the program is a merger of physical education and the supervision of health under the headship of a physician.

¹ Members of the Staff of the Department of Physical Education and Health of the Laboratory Schools of the University of Chicago, *Physical Education and Health of School Children*. Publications of the Laboratory Schools of the University of Chicago, No. 5. Chicago: Department of Education, University of Chicago, 1936. Pp. x+176. \$1.50.

The volume describing the program in the Laboratory Schools of the University of Chicago is conveniently divided into four parts: Part I, "Physical Education in the Elementary School"; Part II, "Physical Education in the High School"; Part III, "Testing and Measuring in Physical Education"; Part IV, "The Health Program of the Laboratory Schools."

Part I sets forth the program of activities from the junior kindergarten through Grade VI. Below Grade IV the boys and girls remain together for their physical activities. This program is aptly described as "supervised but undirected activity" (p. 11), with constant attention to individual needs. From Grade IV on boys and girls are segregated for physical-education activities except in the case of social dancing, which continues as a mixed activity until graduation from the senior high school.

Part II describes the physical-education program in the high school. The program for sub-Freshman, Freshman, and Sophomore boys is largely one of sports, in which stress is placed on "actual competition in order that individual performance and team play in games may both be improved" (p. 77). An extensive intramural program is in effect. Classification for participation on intramural teams is made on the basis of teacher and pupil ratings. "Experience has taught that more equal competition results if playing ability under game situations is considered" (p. 90). Some authorities may wish to take issue with this practice and may not wish to place such faith in the ability of teachers and pupils effectively to classify boys for team participation. The program for sub-Freshman, Freshman, and Sophomore girls is extremely flexible and is characterized by a great deal of voluntary participation. One notable aim for this group is the cultivation of social courtesies as well as participation in physical activities. The program for Juniors and Seniors gives greater freedom to both boys and girls in choosing their activities. Members of interscholastic teams are excused from daily class work in physical education. Others select one or two sports each season in which they wish to participate. A good intramural program is maintained. "The interscholastic games and events are regarded as an integral part of the physical-education program of the high-school boys" (p. 119). On the other hand, "the competing teams are composed of members of the upper classes who win their team positions by the usual process of competitive practice" (p. 119). The difficulty of keeping interscholastic games and events an "integral part of the physical-education program" while excusing team members from physical-education classes and basing team positions on competitive practice will be pointed out by some. One thing is outstanding in this interscholastic program, namely, the absence of regulation football. Soccer seems to have replaced it. Another feature is the fact that "the cost of athletics is paid from the general school funds. No admission is charged for interscholastic contests" (p. 120). This situation is one long dreamed of by many schools, even though they may not wish to invite the "riff-raff" to their games by completely eliminating admission fees. The Laboratory Schools give special attention during the senior high school years to sports with carry-over value, and a

close relation has been developed between the class work in physical education and the intramural program.

Part III deals with the matter of measuring pupil progress in physical activities. The most notable thing here is the small use made of recently developed tests in this field, such as the Rogers Physical Capacity Tests and the Seaver Strength Test, and the large use made of knowledge tests, instructors' and pupils' ratings, and self-testing activities among pupils. "The use of test results as a means of classification of pupils for competition is largely unnecessary because the judgment of the instructors with respect to the playing ability of pupils provides a basis for more equal team divisions" (p. 129). In this connection one is led to comment that a pupil's "playing ability" is not always indicative of his physical condition.

Part IV considers the health program. Below Grade V health instruction is indirect and is concerned largely with the establishment of desirable habits. In Grade V a course in formal health instruction is given which aims "to teach certain fundamentals necessary to an understanding of the principles on which the habits of hygiene and health are founded" (p. 139). Above Grade V health instruction is given in connection with regular high-school courses, primarily science courses. The school gives a great deal of attention to "body mechanics," largely a program of corrective physical education. "Attention is given to children needing corrective treatment, but they are not segregated into special classes for corrective exercises. Experience with special corrective classes has indicated that the social disadvantages of being placed in a corrective class may outweigh the physical advantages obtained" (p. 152). Some persons will contend that no such "social disadvantages" need result from segregation. The school is able to maintain two full-time physicians, a woman for the girls and a man for the boys. Careful medical and physical examinations are given, and cumulative records are kept. Some co-operation with the home is indicated, but the reviewer feels that the program is stopping largely at the point of merely notifying parents. It may be that the type of community in which the school is located makes more than that unnecessary; but, on the whole, health programs must pass beyond the stage of merely exposing and recording weaknesses if they are to be worth what they cost.

One of the most interesting sections of this report is the Appendix. The forms used in the physical-education program, the knowledge tests, the personnel rating scale, the cumulative record form, and other materials are presented here. These should be especially suggestive to persons interested in the details of the program.

All in all, the reviewer considers this report an excellent example of the results when a physical-education staff takes its job seriously. Here are clarified objectives, extensive and well-administered activities, and a harmony of the school's parts in achieving its ends.

P. ROY BRAMMELL

CONNECTICUT STATE COLLEGE
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Progress in teaching typewriting.—When in 1925 William F. Book published *Learning to Typewrite* (Gregg Publishing Company), his learning curves attracted the attention of educational psychologists and still remain of interest to them. It is doubtful, however, that the enormous amount of experimental work and study done in the field of typewriting and teaching of typewriting is generally known to this group. A recent book¹ not only makes available in compact form the most complete summary of this work known to the reviewer, but it also represents what appears to be the best treatise on the teaching of typewriting that exists today. This book should be of interest not only to teachers and students of typewriting but also to many students of educational psychology and of the teaching of other subjects because it represents an able attempt to apply modern theory and experimental findings to an increasingly important field of teaching.

The book is divided into five parts containing in all sixteen chapters. Part I, entitled "Typewriting in Social Situations," considers typewriting as a social heritage, personality problems in typewriting, and incentives in learning to type. Part II is a thorough and complete treatment of typewriting improvement from a psychological approach. Part III is concerned with laboratory studies of typewriting behavior and their applications. Part IV discusses laboratory studies of typewriting difficulties and fatigue. Part V is concerned with typewriting outcomes and is again based on laboratory work.

Throughout this book an enormous amount of psychological material, largely experimental, is brought to bear on the teaching and learning of typewriting. The authors make excellent application of modern psychological theory. Outstanding examples are their treatment of drill versus insight in learning to type-write and their much improved approach to the so-called "touch system." In addition to their evident understanding of psychological theory, the authors have presented formidable justification for the Dvorak-Dealey "simplified" keyboard. Much use is made of Gilbreth's work, and great credit is rightly given by the authors to this splendid worker.

The outstanding features of this book are its wealth of source material; its modern approach, which may well serve as an example for the teaching in other fields; and its excellent organization. The reviewer finds only one possible objection of importance. The book is addressed to three separate types of readers, namely, student typists, psychology students, and instructors of typewriting. The reviewer's fear is that it cannot equally serve all three groups. It is a book that will challenge the ablest students of psychology, and one is doubtful that typewriting students can assimilate it. Yet this departure is interesting and may prove to be an asset.

No matter whether the effort to write for three classes of readers proves desirable, there seems no doubt that this book is unique in the literature devoted

¹ August Dvorak, Nellie L. Merrick, William L. Dealey, and Gertrude Catherine Ford, *Typewriting Behavior: Psychology Applied to Teaching and Learning Typewriting*. Chicago: American Book Co., 1936. Pp. xxii+522.

to the teaching of typewriting. It is difficult to see how any teacher or student of typewriting could fail to profit from reading the book. The reviewer himself is almost tempted to discard the pencil for a typewriter!

AUSTIN H. TURNEY

UNIVERSITY OF KANSAS

A new textbook by a famous author.—Professor David Saville Muzzey, of Columbia University, has published a textbook covering the whole field of American history¹ which is designed for use in the high school. This book includes 854 pages besides various materials in the Appendix. It follows, therefore, the present-day tendency to make books in the social studies longer than was formerly thought advisable—an excellent departure. This tendency means that the textbook is less an expanded syllabus and more a narration of events, that it is possible to include many details, incidents, episodes, and discussions of people and events which add greatly to the interest and which induce many young people to become lifelong students of history.

This book begins with a brief overview, of three pages, which looks forward over the first unit and in a measure over the entire book. The European background and the era of exploration are treated in 39 pages; the Colonial period receives 62 pages; the revolutionary and constitutional period is covered in 75 pages; the career of the federal government from the Constitution of 1787 to the Civil War receives 207 pages; the Civil War period uses 31 pages; the period of the Civil War to the election of 1896 receives 104 pages; and the Spanish War, the progressive era, the World War and its aftermath receive 321 pages. Evidently, then, this book has one very strong quality: it emphasizes the last generation. Not only is this emphasis given, but on numerous occasions in the earlier part of the book the author refers to present-day conditions, thus linking together in well-ordered unity the entire field of American history.

The material in this textbook is organized on the unit plan, the units being eight in number. Each unit is prefaced by two or three pages of introductory discussion. These discussions are overviews of the unit in question. In many cases they also link up a particular unit with later movements or events. The organization of the book is excellent and well knit. The book is well written, interesting, readable. It represents sound scholarship and embodies the latest conclusions of students.

Each chapter closes with a summary and with material which will help both pupil and teacher to use the book effectively, including lists of difficult terms to be mastered, supplementary references for study, lists of books for outside reading, questions to be answered, and topics for special reports. In the Appendix are given a topical analysis, the texts of the Declaration of Independence and of the Constitution of the United States, statistical information concerning

¹ David Saville Muzzey, *A History of Our Country: A Textbook for High-School Students*. Boston: Ginn & Co., 1936. Pp. xii+854+xlvi. \$2.12.

the states and territories, and the names of the presidents and chief justices of the United States. Then comes a good index.

The final chapter in the book, which is entitled "The New Deal" and which is prefaced by a paragraph entitled "Whither?" devotes twenty-four pages to the period of American history from the critical election of 1932 to the early months of 1936. It also gives a brief summary and backward glance over the long road that America has traveled during the preceding generations. The important measures of the New Deal then are covered briefly in sixteen pages—a proper allotment of space to these four years in proportion to the rest of the book. Since, however, progressive teachers of American history will desire to lay emphasis on the current period, this material will need to be supplemented by additional references.

This book is well bound; the maps and the illustrations are new; and many of the illustrations are pictures involving movement. The print and the paper are excellent for school use. Without question this publication is a valuable and usable textbook.

DUDLEY S. BRAINARD

STATE TEACHERS COLLEGE
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The experience motif in high-school English.—Professor Seely's textbook in high-school language and composition¹ adopts the aims, the concept of experience, and the specific learnings approved in the report of the commission of the National Council of Teachers of English known as *The Experience Curriculum in English*. That is, Seely's book seeks to impress pupils with the significance of language in daily life; to arouse desire for improvement in their use of language; and to provide, direct, or suggest the realistic experiences likely to effect that improvement. Direct provision for the first two aims cited is confined mainly to chapters i and ii. The remaining ten chapters are positively concerned with improving pupils' understanding and use of language. It would probably be unfair to say that such a division gives a poorly balanced treatment of the three aims, since the organization and the methods of the last ten chapters are such as to contribute indirectly, but none the less successfully, to the appreciation of language importance and to the desire for mastering its uses. The language learnings stressed are conversation, social and business letters, vocabulary, sentence and paragraph construction, capitalization, punctuation, and grammatical usage. Besides these functional forms and conventional elements, the qualities of effective composition are given a great deal of attention. Thus, unity, coherence, emphasis, variety, imagination, originality, colorfulness, and the like are discussed, illustrated, and "exercised."

The pupil experiences involved are pleasant, explanatory talks by the author; illustrative writings of high-school pupils; language observations; class and

¹ Howard Francis Seely, *Experiences in Thought and Expression*. Newark, New Jersey: Silver Burdett Co., 1936. Pp. xvi+512. \$1.48.

small-group discussions; oral and written compositions; and more or less formal exercises in proofreading, error recognition, and construction. The method scheme of pretest, study, and retest is used in the chapter on grammar and usage. In this instance the method is so well organized that one wishes it had been used elsewhere in the book. Throughout the book there is conscientious effort to bring the pupils to work inductively and to arrive at principles and generalizations of their own. Since the author, however, seems to find it necessary always to record his own answers and conclusions, pupils who possess reasonable shrewdness may avoid most of the strain of the inductive procedure if they wish. Many teachers, no doubt, will not regard the author's gratuitousness with disapproval.

In general, Professor Seely in this book has steered a judicious course between the old and the new. He has retained a good bit of time-honored rhetoric, but he has given much attention to the daily forms and occasions of speech and writing. He leans, perhaps, toward literary cultivation, but the models that he introduces are from adolescent writers instead of from the old masters. Grammar is given place, but only the grammar that appears to be closely related to a few types of troublesome usage. Formal exercises are assigned, but they are clearly not provided as busy work. The elements of composition are shown due reverence, but the approach to them is from functional wholes. The book, with teachers of fairly modern outlook and of pedagogical intelligence, should prove an excellent instructional aid over at least a two-year course of language and composition.

MATTHEW H. WILLING

UNIVERSITY OF WISCONSIN

A new aid for the teacher of the short story.—Another contribution to the already voluminous mass of material in the short-story field has come from the press.¹ The author is a member of the English faculty of Johns Hopkins University.

In a single volume of about five hundred pages the author or "editor," as he is described on the title-page, has attempted a task which cannot be performed adequately in a single volume of reasonable size—the task of presenting the short story as a reflector of the social, economic, and religious life of America from the beginning to the present.

The author's plan is to present the material under eight headings: "The Indian," "The Negro," "Other Minority Peoples," "Religion," "War," "Woman," "Labor and Capital," and "Social Classes," with the subheads "Farmer," "Clerk," "Hobo," and "Artist" under the last-named general heading.

While the stories presented as illustrative material are excellent stories and are admirably adapted as illustrations, there is serious doubt that they are the best and the most thoroughly representative stories which could have been

¹ *America through the Short Story*. Edited by N. Bryllion Fagin. Boston: Little, Brown & Co., 1936. Pp. x+508. \$1.75.

chosen for the editor's purpose. This criticism, however, might properly be made of almost any anthology. Again, the reader might reasonably question whether the general headings employed represent all the mirrors through which America is reflected in short-story form. It is doubtful, too, whether any literary form which, like the short story, has assumed all but epic proportions could be adequately presented in the small space allotted to this book.

commendable features of the book are the well-written and entertaining discussions which serve as introductions to the groups of stories used as illustrations. Naturally much of this prefatory material is "stock stuff" to one who is familiar with the history of the short story, but the manner in which the material is presented saves it from being tedious or offensive. The reader will feel that the editor-author, besides having a sympathetic and intelligent contact with his material, has also the knack of saying what he has to say in a pleasing and instructive way. The preliminary discussion in the second section is especially good.

Each section is supplemented by a good brief bibliography of source material, and the book concludes with biographical sketches of the writers whose stories appear in the anthology and a concise, well-written "Postscript for Short-Story Writers."

This book is "good medicine" for the teacher of the short story who has allowed himself to become engrossed with technique. Perhaps we need a similar work of more ambitious proportions, one which follows the same plan as this book but covers the field more thoroughly.

VINCENT A. DAVIS

KANSAS STATE TEACHERS COLLEGE
EMPORIA, KANSAS

A modern and realistic approach to the teaching of speech.—Here is a college textbook in speech¹ which represents perhaps the farthest point yet reached in the present-day journey away from rule-of-thumb oratory and "expression." The authors are prominent both as teachers and writers. With solid pedagogical backgrounds plus a fearlessly fresh attitude toward stultified tradition, they have produced a course in speech which, new as it is in approach, is never undignified nor sensational. Such a result is obtained because their implied and direct criticism of old methods is constructive. In attacking the petrified forest of rules for public speaking, the authors have provided in their place vital, common-sense guides for teaching based on the general principle that effective speaking cannot be taught from the outside in (by giving instruction in specific gestures, voice inflections, etc.) but that it must come from inner conviction and the having of something to say. Thus, method is made a natural offshoot, as it ought to be, of considered end objectives.

Theory and practice are discriminately distributed in the organization of

¹ Lew Sarett and William Trufant Foster, *Basic Principles of Speech*. Boston: Houghton Mifflin Co., 1936. Pp. vi+578. \$2.50.

the volume. Principles are given in concentrated form, are developed clearly, and are followed by carefully selected and definitely motivated exercises, which themselves reflect the authors' fresh treatment by including controversial, timely subjects leading to the arousing of conviction and to the selecting of unhackneyed excerpts of literature.

The book is divided into two main parts, treating delivery and composition. Part I is oriented on six original and basic principles: (1) that effective speech is for communication, not for exhibition; (2) that it commands attention in order to win response; (3) that the technique of effective speech is disarming because unobtrusive; (4) that speech is effective in proportion to the intrinsic worth of the speaker; (5) that the speaker's impressions are gained largely from signs of which the audience is unaware; and (6) that effective speech results in part from free bodily action. The remaining chapters, built on these six principles, deal in detail with such aspects of speaking as confidence and poise, the conversational spirit, self-motivated action, the voice, melody, time, and force. Each chapter in Part I is accompanied by exercises for extemporaneous speaking (an art which the authors rate high in modern life) and selections for declamation and interpretation. Part II offers definite, unpadded instruction in the preparation of speeches, including treatments of the following topics: outlining, finding, choosing, and arranging material; argumentation; language of speech; and radio speaking. Chapters in Part II naturally do not include literary selections but are followed by further and copious suggestions for talks and by suggested audience situations. Some of the audience situations are most stimulating.

Two complete indexes, one of topics and one of authors, complete a valuable textbook. The volume is well bound, attractively printed, and furnished with five full-page action photographs of living notables famous for their ability in public speaking.

LOUIS TRAVERS

WASHINGTON JUNIOR HIGH SCHOOL
DULUTH, MINNESOTA

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

- DAVIS, BENJAMIN FRANKLIN. *A Study of Shorthand Teaching: Comparison of Outcomes in the Learning of Shorthand Effected by Differences in Teaching Methodology*. Teachers College Contributions to Education, No. 693. New York: Teachers College, Columbia University, 1936. Pp. viii+108. \$1.60.
- FORLANO, GEORGE. *School Learning with Various Methods of Practice and Rewards*. Teachers College Contributions to Education, No. 688. New York: Teachers College, Columbia University, 1936. Pp. 114. \$1.60.
- GARINGER, ELMER HENRY. *The Administration of Discipline in the High School*.

- Teachers College Contributions to Education, No. 686. New York: Teachers College, Columbia University, 1936. Pp. viii+106. \$1.60.
- GRIFFEY, CARL H. *The History of Local School Control in the State of New York*. Teachers College Contributions to Education, No. 683. New York: Teachers College, Columbia University, 1936. Pp. viii+136. \$1.60.
- GROVES, WILLIAM C. *Native Education and Culture-Contact in New Guinea: A Scientific Approach*. Australian Council for Educational Research Series, No. 46. Melbourne: Melbourne University Press, 1936. Pp. 180.
- HABBE, STEPHEN. *Personality Adjustments of Adolescent Boys with Impaired Hearing*. Teachers College Contributions to Education, No. 697. New York: Teachers College, Columbia University, 1936. Pp. viii+86. \$1.60.
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